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## PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * *	* *	* *	* *	* Welcome to STN International * * * * * * * * *
NEWS	1			Web Page for STN Seminar Schedule - N. America
NEWS	2	JUL	28	CA/CAplus patent coverage enhanced
NEWS	3	JUL	28	EPFULL enhanced with additional legal status
				information from the epoline Register
NEWS		JUL		IFICDB, IFIPAT, and IFIUDB reloaded with enhancements
NEWS	5	JUL	28	STN Viewer performance improved
NEWS	6	AUG	01	INPADOCDB and INPAFAMDB coverage enhanced
NEWS	7	AUG	1.3	CA/CAplus enhanced with printed Chemical Abstracts
				page images from 1967-1998
NEWS	8	ATTG	15	CAOLD to be discontinued on December 31, 2008
	9			
	10			
NEWS	10	AUG	21	comprehensive access to substance and sequence
				information
NEWS	11	SEP	18	Support for STN Express, Versions 6.01 and earlier,
				to be discontinued
NEWS	12	SEP	25	
				to accommodate supplemental CAS indexing of
				exemplified prophetic substances
NEWS	13	SEP	26	WPIDS, WPINDEX, and WPIX coverage of Chinese and
				and Korean patents enhanced
NEWS	14	SEP	29	IFICLS enhanced with new super search field
NEWS	15	SEP	29	EMBASE and EMBAL enhanced with new search and
				display fields
NEWS	16	SEP	30	CAS patent coverage enhanced to include exemplified
				prophetic substances identified in new Japanese-
				language patents
NEWS	17	ОСТ	0.7	
NEWS		OCT		Multiple databases enhanced for more flexible patent
MEM	10	001	0 /	number searching
NEWS	10	OCT	22	Current-awareness alert (SDI) setup and editing
NEWS	19	UCI	22	
				enhanced
NEWS	20	OCT	22	WPIDS, WPINDEX, and WPIX enhanced with Canadian PCT
				Applications
NEWS	21	OCT	24	
				pre-registered REACH substances
NEWS	EXP	RESS		E 27 08 CURRENT WINDOWS VERSION IS V8.3,
			AND	CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

NEWS HOURS STN Operating Hours Plus Help Desk Availability

NEWS LOGIN Welcome Banner and News Items

NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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SINCE FILE

ENTRY

0.21

TOTAL

0.21

SESSION

FILE 'HOME' ENTERED AT 17:27:42 ON 30 OCT 2008

=> file reg COST IN U.S. DOLLARS

COST IN U.S. DOLLARS

FULL ESTIMATED COST
FILE 'REGISTRY' ENTERED AT 17:28:03 ON 30 OCT 2008

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STRUCTURE FILE UPDATES: 29 OCT 2008 HIGHEST RN 1068186-59-3 DICTIONARY FILE UPDATES: 29 OCT 2008 HIGHEST RN 1068186-59-3

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TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

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http://www.cas.org/support/stngen/stndoc/properties.html

=>

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L1 STRUCTURE UPLOADED

-> e 11

SAMPLE SEARCH INITIATED 17:36:17 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 793 TO ITERATE

100.0% PROCESSED 793 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*
BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 14171 TO 17549
PROJECTED ANSWERS: 8454 TO 11106

L2 50 SEA SSS SAM L1

=> s 11 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y

50 ANSWERS

9905 ANSWERS

FULL SEARCH INITIATED 17:36:22 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 15904 TO ITERATE

100.0% PROCESSED 15904 ITERATIONS SEARCH TIME: 00.00.01

L3 9905 SEA SSS FUL L1

=> file hcaplus

 COST IN U.S. DOLLARS
 SINCE FILE
 TOTAL

 FULL ESTIMATED COST
 184.34
 184.34
 184.34

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FILE COVERS 1907 - 30 Oct 2008 VOL 149 ISS 18 FILE LAST UPDATED: 29 Oct 2008 (20081029/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 13/prep 15464 L3

4660528 PREP/RL 1550 L3/PREP T. 4

(L3 (L) PREP/RL)

=> file req COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 2.69 187.24

FULL ESTIMATED COST

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1.5 STRUCTURE UPLOADED

=> s 15

SAMPLE SEARCH INITIATED 17:37:59 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 867 TO ITERATE

100.0% PROCESSED 867 ITERATIONS SEARCH TIME: 00.00.01

18 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\* BATCH \*\*COMPLETE\*\*

15574 TO 19106 PROJECTED ITERATIONS: 106 TO PROJECTED ANSWERS: 614

L6 18 SEA SSS SAM L5

=> s 15 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y) /N or END:y

FULL SEARCH INITIATED 17:38:03 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 17307 TO ITERATE

100.0% PROCESSED 17307 ITERATIONS SEARCH TIME: 00.00.01

329 ANSWERS

329 SEA SSS FUL L5 L7

=> file hcaplus FULL ESTIMATED COST

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 179.28 366.52

FILE 'HCAPLUS' ENTERED AT 17:38:12 ON 30 OCT 2008 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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=> d his

L1

(FILE 'HOME' ENTERED AT 17:27:42 ON 30 OCT 2008)

FILE 'REGISTRY' ENTERED AT 17:28:03 ON 30 OCT 2008 STRUCTURE UPLOADED

T. 2 50 S L1

L3 9905 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 17:36:25 ON 30 OCT 2008 1550 S L3/PREP L4

FILE 'REGISTRY' ENTERED AT 17:36:34 ON 30 OCT 2008 STRUCTURE UPLOADED

1.6 18 S L5

329 S L5 FULL

FILE 'HCAPLUS' ENTERED AT 17:38:12 ON 30 OCT 2008

=> s 17/rct 822 L7

3163746 RCT/RL L8 684 L7/RCT

(L7 (L) RCT/RL)

=> s 18 and 14 L9 27 L8 AND L4

=> s 19 and shapiro, r?/au 857 SHAPIRO, R?/AU

L10 1 L9 AND SHAPIRO, R?/AU

=> d 110, ibib abs hitstr, 1

L10 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:696875 HCAPLUS

DOCUMENT NUMBER: 143:155307

TITLE: Process for the manufacture of 2,3-dichloropyridine

INVENTOR(S): Shapiro, Rafael

PATENT ASSIGNEE(S): E.I. Dupont de Nemours and Company, USA PCT Int. Appl., 23 pp.

SOURCE: CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

PA:	TENT :	NO.			KIN		DATE			APPI	LICAT				D	ATE	
WO	2005	0708	88		A2		2005	0804		WO 2	2005-	US24	62		2	0050	121
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	, BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ	, EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS	, JP,	KE,	KG,	KP,	KR,	KZ,	LC,
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG	, MK,	MN,	MW,	MX,	MZ,	NA,	NI,
		NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	, SC,	SD,	SE,	SG,	SK,	SL,	SY,
		TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US	, UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD	, SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
		AZ,	BY,	KG,	KZ,	MD,	RU,	ТJ,	TM,	AT,	, BE,	BG,	CH,	CY,	CZ,	DE,	DK,
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	IS,	, IT,	LT,	LU,	MC,	NL,	PL,	PT,
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		MR,	NE,	SN,	TD,	TG											
AU	2005	2065	76		A1		2005	0804		AU 2	2005-	2065	76		2	0050	121
										CA :	2005-	2553	850		2	0050	121
EP	1706	381			A2		2006	1004		EP 2	2005-	7120	75		2	0050	121
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	, IT,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	LT,	LV,	FI,	RO,	CY,	TR,	BG,	, CZ,	EE,	HU,	PL,	SK,	IS,	YU
	1910						2007			CN 2	2005-	8000	2691		2	0050	121
BR	2005	0065	02		A		2007	0227		BR 2	2005-	6502			2	0050	121
JP	2007	5230	65		T		2007	0816		JP 2	2006-	5514	37		2	0050	121
	2007										2006-						
IN	2006	DN03	640		A		2007	0824		IN 2	2006-	DN36	40		2	0060	623
MX	2006	PA08	208		A		2006	0831		MX 2	2006-	PA82	08		2	0060	719

PRIORITY APPLN. INFO.:

US 2004-539068P P 20040123 WO 2005-US2462 W 20050121

OTHER SOURCE(S): CASREACT 143:155307

- AB A method for preparing 2,3-dichloropyridine is disclosed in which 3-amino-2-chloropyridine is contacted with an alkali metal nitrite in the presence of aqueous hydrochloric acid to form a diazonium salt; and the diazonium salt is subsequently decomposed in the presence of copper catalyst wherein at least about 50% of the copper is the copper(II) oxidation state.
- IT 2402-77-9P, 2,3-Dichloropyridine
  RL: IMF (Industrial manufacture); PREP (Preparation)
  (process for the manufacture of 2,3-dichloropyridine)
  RN 2402-77-9 HCAPLUS
- CN Pyridine, 2,3-dichloro- (CA INDEX NAME)

- RN 94770-75-9 HCAPLUS
- CN 3-Pyridinamine, 2-chloro-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

- II 6298-19-7, 3-Amino-2-chloropyridine
   RL: RCT (Reactant); RRCT (Reactant or reagent)
   (process for the manufacture of 2,3-dichloropyridine)
  RN 6298-19-7 HCAPLUS
- CN 3-Pyridinamine, 2-chloro- (CA INDEX NAME)

=> file rea SINCE FILE COST IN U.S. DOLLARS TOTAL ENTRY SESSION FULL ESTIMATED COST 16.21 382.73 SINCE FILE DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) TOTAL ENTRY SESSION CA SUBSCRIBER PRICE -0.80 -0.80

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DICTIONARY FILE UPDATES: 29 OCT 2008 HIGHEST RN 1068186-59-3

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http://www.cas.org/support/stngen/stndoc/properties.html

=> e nitrite/cn NITRINE-TDC/CN E2 NITRINOSE/CN E3 1 --> NITRITE/CN 1 NITRITE (13NO21-)/CN 1 NITRITE (15N18O21-)/C E4 E5 NITRITE (15N18021-)/CN NITRITE (15N01801-)/CN E6 1 NITRITE (15NO21-)/CN NITRITE (15NO21-)/CN NITRITE (CYTOCHROME C;AMMONIA-FORMING) REDUCTASE/CN NITRITE (CYTOCHROME) REDUCTASE/CN E7 1 E8 1 E9 1 NITRITE (H(NO2)21-)/CN NITRITE (NO1801-)/CN E10 1 E11 1 E12 1 NITRITE (NO2-)/CN => s e3

L11 1 NITRITE/CN

=> file hcaplus
COST IN U.S. DOLLARS
SINCE FILE
ENTRY
ENTRY
SESSION
5.61 388.34

DISCOUNT AMOUNTS (FOR OUALIFYING ACCOUNTS) SINCE FILE TOTAL. ENTRY SESSION 0.00 -0.80

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FILE COVERS 1907 - 30 Oct 2008 VOL 149 ISS 18 FILE LAST UPDATED: 29 Oct. 2008 (20081029/ED)

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=> s 111 L12 19225 L11

=> d his

L4

(FILE 'HOME' ENTERED AT 17:27:42 ON 30 OCT 2008)

FILE 'REGISTRY' ENTERED AT 17:28:03 ON 30 OCT 2008 L1 STRUCTURE UPLOADED

L2 50 S L1

L3 9905 S L1 FULL

> FILE 'HCAPLUS' ENTERED AT 17:36:25 ON 30 OCT 2008 1550 S L3/PREP

FILE 'REGISTRY' ENTERED AT 17:36:34 ON 30 OCT 2008

L5 STRUCTURE UPLOADED 18 S L5

L7 329 S L5 FULL

FILE 'HCAPLUS' ENTERED AT 17:38:12 ON 30 OCT 2008

L8 684 S L7/RCT

1.9 27 S L8 AND L4 T-10 1 S L9 AND SHAPIRO, R?/AU

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FILE 'REGISTRY' ENTERED AT 17:40:46 ON 30 OCT 2008
              E NITRITE/CN
              1 S E3
    FILE 'HCAPLUS' ENTERED AT 17:40:58 ON 30 OCT 2008
          19225 S L11
=> s 112 and 19
            0 L12 AND L9
=> s 19 and 112
L14 0 L9 AND L12
=> d 19, ibib abs hitstr, 1-27
L9 ANSWER 1 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:
                     2008:590684 HCAPLUS
DOCUMENT NUMBER:
                         148:561908
TITLE:
                        Preparation of heterocyclic sulfonamide compounds as
                        Edg-1 antagonists useful in the treatment of cancer
INVENTOR(S):
                        Grewal, Gurmit; Hennessy, Edward; Kamhi, Victor; Li,
                        Danyang; Lyne, Paul; Oza, Vibha; Saeh, Jamel Carlos;
                        Su, Qibin; Yang, Bin
PATENT ASSIGNEE(S):
                        Astrazeneca AB, Swed.; Astrazeneca Uk Limited
SOURCE:
                        PCT Int. Appl., 215 pp.
                        CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
     PATENT NO.
                  KIND DATE APPLICATION NO. DATE
     WO 2008056150
                        A1 20080515 WO 2007-GB4267 20071108
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA,
             CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI,
             GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG,
             KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
             MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL,
             PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN,
             TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
             GH. GM. KE. LS. MW. MZ. NA. SD. SL. SZ. TZ. UG. ZM. ZW. AM. AZ.
             BY, KG, KZ, MD, RU, TJ, TM
                                           US 2006-865364P P 20061110
US 2007-895699P P 20070319
US 2007-947795P P 200707073
US 2007-953838P P 20070803
PRIORITY APPLN. INFO.:
```

GI

OTHER SOURCE(S): MARPAT 148:561908

AB The invention relates to chemical compds. of formula I (wherein ring A is carbocyclyl or heterocyclyl; n = 0-5; Rl is halo, nitro, cyano, etc.; R2 is Cl-6alkyl, carbocyclyl, etc.; R3 is H, Cl-6alkyl, etc.; or alternatively, R2 and R3 together may form part of C3-6carbocyclic ring; R4 is Cl-6alkyl or carbocyclyl; Ring D is a 5-7 membered ring; R5 is a substituent on carbon and is halo, nitro, cyano, etc.; m is 0-5) or pharmaceutically acceptable salts thereof, which possess Edg-1 antagonistic activity and are accordingly useful for their anti-cancer activity and thus in methods of treatment of the human or animal body. The invention also relates to processes for the manufacture of said chemical compds., to pharmaceutical compns. containing them and to their use in the manufacture of medicaments for use in the production of an anti-cancer effect

in a warm-blooded animal, such as man. Example compound II, prepared by reacting the appropriate sulfonyl chloride with [1-[1-(cyclopropylmethyl)-1H-benzimidazol-2-yl]ethyl]amine, caused 100% inhibition of Edg-1 receptor activity at 3.70 µM in an in vitro cell based receptor activition assay.

IT 1025506-76-6P, 5,6-Dichloro-N-[(1R)-1-[1-ethyl-6-(trifluoromethyl)1H-benzimidazol-2-yl]ethyl]pyridine-3-sulfonamide
R1: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation);
USES (Uses)

(drug candidate; preparation of heterocyclic sulfonamide compds. as Edg-1 antagonists useful in treatment of cancer)

RN 1025506-76-6 HCAPLUS

CN 3-Pyridinesulfonamide, 5,6-dichloro-N-[(1R)-1-[1-ethyl-6-(trifluoromethyl)-1H-benzimidazol-2-yl]ethyl]- (CA INDEX NAME)

Absolute stereochemistry.

ΤТ 1025509-12-9P, 2-Chloro-N'-ethylpyridine-3,4-diamine RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of heterocyclic sulfonamide compds. as Edg-1 antagonists useful

in treatment of cancer) RN 1025509-12-9 HCAPLUS

CN 3,4-Pyridinediamine, 2-chloro-N4-ethyl- (CA INDEX NAME)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 2 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:490320 HCAPLUS

DOCUMENT NUMBER: 149:32173

TITLE: (Dimethoxy- and dihalopyridyl)boronic acids and highly

functionalized heteroarylpyridines by Suzuki cross-coupling reactions

AUTHOR(S): Smith, Amy E.; Clapham, Kate M.; Batsanov, Andrei S.;

Bryce, Martin R.; Tarbit, Brian Department of Chemistry, Durham University, Durham,

CORPORATE SOURCE:

DH1 3LE, UK SOURCE: European Journal of Organic Chemistry (2008), (8),

1458-1463

CODEN: EJOCFK; ISSN: 1434-193X PUBLISHER:

Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S):

CASREACT 149:32173

Updated Search

AB (Dimethoxy— and dihalopyridyl) boronic acids, e.g., I, were synthesized by directed ortho-metalation reactions on the corresponding disubstituted pyridine precursor, followed by the reaction with triisopropyl borate (TPB) or tri-Me borate. The reactivity of the pyridylboronic acids with heteroaryl halides in Suzuki-Miyaura cross-coupling reactions has been evaluated. New highly functionalized heteroarylpyridine derivs., e.g., II, have thereby been obtained in moderate to high yields. The reaction of I and 3-amino-2-chloropyridine yielded the rare SH-pyrrolo[2,3-br4,5-br]dipyridine (i.e. 1,5-diazacarbazole) ring system III by sequential cross-coupling and intra-mol. cyclization reactions. The X-ray crystal structures are reported for the pyridylboronic acids.

T 951677-39-7P RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(crystal structure; preparation of heteroarylpyridines via ortho-metalation and substitution of disubstituted pyridines to generate corresponding pyridylboronic acids which undergo Suzuki-Miyaura cross-coupling with heteroaryl halides)

- RN 951677-39-7 HCAPLUS
- CN Boronic acid, B-(2,3-dichloro-4-pyridinyl)- (CA INDEX NAME)

- IT 6298-19-7, 2-Chloro-3-aminopyridine
  - RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of heteroarylpyridines via ortho-metalation and substitution of disubstituted pyridines to generate corresponding pyridylboronic acids which undergo Suzuki-Miyaura cross-coupling with heteroaryl halides)

- RN 6298-19-7 HCAPLUS
- CN 3-Pyridinamine, 2-chloro- (CA INDEX NAME)

1031439-21-0P 1031439-23-2P 1031439-25-4P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of heteroarylpyridines via ortho-metalation and substitution of disubstituted pyridines to generate corresponding pyridylboronic acids which undergo Suzuki-Miyaura cross-coupling with heteroaryl halides)

1031439-21-0 HCAPLUS RN

CN Quinoline, 3-(2,3-dichloro-4-pyridinyl)- (CA INDEX NAME)

RN 1031439-23-2 HCAPLUS

2-Pyrimidinamine, 5-(2,3-dichloro-4-pyridinyl)- (CA INDEX NAME) CN

1031439-25-4 HCAPLUS

3,4'-Bipyridine, 2',3'-dichloro- (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 73 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

73 L9 ANSWER 3 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:410542 HCAPLUS

DOCUMENT NUMBER: 146:422187 TITLE: Preparation of 9-azabicyclo[3.3.1]nonane derivatives for therapeutic use as dopamine and serotonin reuptake inhibitors

INVENTOR(S): Bingham, Matilda Jane; Huggett, Margaret Jean;

Huggett, Mark; Kiyoi, Yasuko; Napier, Susan Elizabeth; Nimz, Olaf

PATENT ASSIGNEE(S): N. V. Organon, Neth. PCT Int. Appl., 69pp. SOURCE:

CODEN: PIXXD2 Patent

DOCUMENT TYPE: LANGUAGE:

English FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	TENT				KIN		DATE					ION I				ATE		
WO	2007	0395	63													0060	929	
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
		CN,	co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
		GE.	GH.	GM.	HN.	HR.	HU,	ID.	IL.	IN.	IS.	JP.	KE.	KG.	KM.	KN.	KP.	
							LR,											
							NG,											
		RU.	SC.	SD,	SE.	SG.	SK,	SL.	SM.	SV.	SY.	TJ.	TM.	TN.	TR.	TT.	TZ.	
							VN,											
	RW:						CZ,				ES,	FI,	FR,	GB,	GR,	HU,	IE,	
		IS.	IT.	LT.	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE.	SI,	SK,	TR.	BF,	BJ,	
							GN,											
							NA,											
					RU,				,						,			
CA	2623	359			A1		2007	0412		CA 2	006-	2623	359		2	0060	929	
US	2007	0112	019		A1		2007	0517		US 2	006-	5412	73		2	0060	929	
	1934																	
	R:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR.	GB,	GR,	HU,	IE,	
		IS.	IT.	LI.	LT.	LU.	LV,	MC.	NL.	PL.	PT.	RO.	SE.	SI.	SK.	TR.	HR.	RS
MX	2008						2008											
CN	1012	9193	1		A		2008	1022		CN 2	006-	8003	9124		2	0800	421	
PRIORIT												1091						
										US 2	005-	7219	64P		P 2	0050	930	
										WO 2	006-	EP66	896		W 2	0060	929	
OTHER S	DURCE	(S):			MARI	PAT	146:	4221										

MARPAT 146:422187 GI



AB 9-Azabicyclo[3.3.1]nonane derivs., such as I (R = H, alkyl; R1 = aryl, heteroary1; X = O, NH), were prepared for use in pharmaceutical compns. for the treatment or prevention of diseases or disorders for which the reuptake inhibition of one or more monoamine neurotransmitter contributes to the therapeutic effect, such as depression or pain. Thus, exo-3-(benzo[d]isothiazol-7-yloxy)-9-azabicyclo[3.3.1]nonane (II) was prepared in 53% yield by reacting endo-3-hydroxy-9-azabicyclo[3.3.1]nonane-9-carboxylic acid tert-Pu ester with benzo[d]stothiazol-7-ol using (4,4-dimethyl-1,1-dioxido-1,2,5-thiadiazolidin-2-yl)triphenylphosphonium in THF and heated to 140° for 10 min using microwave irradiation The prepared 9-azabicyclo[3.3.1]nonanes were assayed in vitro for inhibition of dopamine and serotonin uptake.

IT 934181-09-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (USEs)

(preparation of 9-azabicyclo[3.3.1]nonane derivs. for therapeutic use as monoamine reuptake inhibitors)

RN 934181-09-6 HCAPLUS

CN 9-Azabicyclo[3.3.1]nonane, 3-[(5,6-dichloro-2-pyridiny1)oxy]-, (3-exo)-(CA INDEX NAME)

Relative stereochemistry.

IT 24525-63-1P 34392-85-3P 83732-68-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(preparation of 9-azabicyclo[3.3.1]nonane derivs. for therapeutic use as monoamine reuptake inhibitors)

RN 24525-63-1 HCAPLUS

CN 2(1H)-Pyridinone, 5,6-dichloro- (CA INDEX NAME)

RN 34392-85-3 HCAPLUS

CN 3-Pyridinamine, 2-chloro-6-methoxy- (CA INDEX NAME)

83732-68-7 HCAPLUS RN

CN Pyridine, 2,3-dichloro-6-methoxy- (CA INDEX NAME)

CORPORATE SOURCE:

SOURCE:

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:476236 HCAPLUS DOCUMENT NUMBER: 145:167209

TITLE: Design of potent, orally available antagonists of the

transient receptor potential vanilloid 1.

Structure-activity relationships of 2-piperazin-1-y1-1H-benzimidazoles

AUTHOR(S): Ognyanov, Vassil I.; Balan, Chenera; Bannon, Anthony

W.; Bo, Yunxin; Dominguez, Celia; Fotsch, Christopher; Gore, Vijay K.; Klionsky, Lana; Ma, Vu V.; Qian,

Yi-Xin; Tamir, Rami; Wang, Xianghong; Xi, Ning; Xu, Shimin; Zhu, Dawn; Gavva, Narender R.; Treanor, James

J. S.; Norman, Mark H.

Department of Chemistry Research and Discovery and

Department of Neuroscience, Amgen Inc., Thousand Oaks, CA, 91320-1799, USA

Journal of Medicinal Chemistry (2006), 49(12),

3719-3742

CODEN: JMCMAR: ISSN: 0022-2623 PUBLISHER:

American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 145:167209

- AR The vanilloid receptor-1 (VR1 or TRPV1) is a membrane-bound, nonselective cation channel that is predominantly expressed by peripheral neurons sensing painful stimuli. TRPV1 antagonists produce antihyperalgesic effects in animal models of inflammatory and neuropathic pain. The synthesis and the structure-activity relationships of a series of 2-(4-pvridin-2-vlpiperazin-1-vl)-1H-benzo[d]imidazoles I [R1 = H, Me3SiCH2CH2OCH2, PhCH2; R2 = F, Cl, Br, F3C, Me, CN, Me3C, Me02C, etc.; R3 = H, 4-(2-thiazolyl), 4-(4-pyridyl), 5-(4-F3CC6H4), etc.; R4 = H, Me; R5 = H, H2N, MeCHOH, H2C:CH, etc.; R6 = H, C1, F3C, etc.] and analogs as novel TRPV1 antagonists have been described. I [R1 = H; R2 = F3C; R3 = 4-(3,4,5-F3C6H2); R4 = (R)-Me; R5 = HOCH2CHOH; R6 = C1; (II)] was among the most potent analogs in this series. This compound was orally bioavailable in rats and was efficacious in blocking capsaicin-induced flinch in rats in a dose-dependent manner. II also reversed thermal hyperalgesia in a model of inflammatory pain, which was induced by complete Freund's adjuvant (CFA).
- IT 117519-09-2, 3-Amino-2-chloro-6-(trifluoromethyl)pyridine RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of [(pyridyl)piperazinyl]benzimidazoles and analogs as potent, orally available antagonists of the transient receptor potential vanilloid 1 and analogsics)

RN 117519-09-2 HCAPLUS

CN 3-Pyridinamine, 2-chloro-6-(trifluoromethyl)- (CA INDEX NAME)

- IT 54127-29-6P 56055-54-0P 71690-05-6P 75291-84-8P 162327-73-3P 683243-82-5P
  - RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)
(preparation of [(pyridyl)piperazinyl]benzimidazoles and analogs as potent,
orally available antagonists of the transient receptor potential

vanilloid 1 and analgesics)

RN 54127-29-6 HCAPLUS

CN 3-Pyridinecarbonyl chloride, 5,6-dichloro- (CA INDEX NAME)

RN 56055-54-0 HCAPLUS

CN 3-Pyridinecarboxylic acid, 5,6-dichloro-, methyl ester (CA INDEX NAME)

- RN 71690-05-6 HCAPLUS
- CN 3-Pyridinecarboxaldehyde, 5,6-dichloro- (CA INDEX NAME)

- C1 CHC
- RN 75291-84-8 HCAPLUS
- CN 3-Pyridinecarboxamide, 5,6-dichloro- (CA INDEX NAME)

- RN 162327-73-3 HCAPLUS
- CN 3-Pyridinecarboxamide, 5,6-dichloro-N-methoxy-N-methyl- (CA INDEX NAME)

- RN 683243-82-5 HCAPLUS
- CN 3-Pyridinemethanol, 5,6-dichloro-α-methyl- (CA INDEX NAME)

REFERENCE COUNT:

44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 5 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:36034 HCAPLUS

DOCUMENT NUMBER: 145:210950

TITLE: Effects of halogen introduction at the C-5 position of the imidacloprid pyridine ring upon insecticidal

activity

AUTHOR(S): Kagabu, Shinzo; Ito, Nakako; Imai, Rie; Hieta, Yosuke;

Nishimura, Keiichiro
CORPORATE SOURCE: Department of Chemistry, F

CORPORATE SOURCE: Department of Chemistry, Faculty of Education, Gifu University, Gifu, 501-1193, Japan

SOURCE: Journal of Pesticide Science (Tokyo, Japan) (2005), 30(4), 409-413

CODEN: JPSTCF; ISSN: 1348-589X

PUBLISHER: Pesticide Science Society of Japan

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Following a recent report of unexpectedly high affinity of 5-azidoimidacloprid to insect nicotinic acetylcholine receptor, derivs. with four halogen atoms and cyano and nitro were prepared, and the insecticidal effect was evaluated in American cockroaches by Injection alone and with synergists piperonyl butoxide and propargyl Pr benzenephosphonate. The log (1/MLD) value, the minimal LD in mol, was 8.96 for imidacloprid (I, X = H) and 8.82 for the fluoro derivative (I, X = F). The other derivs. were less active. The synergists enhanced the activity of all compds. The log (1/MLD) value for 5-azidoimidacloprid, 7.37 without or 8.18 with synergists, was not striking in this experiment II 135769-74-3P

RI: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(effects of halogen introduction at C-5 position of imidacloprid pyridine ring upon insecticidal activity)

RN 135769-74-3 HCAPLUS

CN 1H-Imidazol-2-amine, 1-[(5,6-dichloro-3-pvridinvl)methvl]-4,5-dihvdro-Nnitro- (CA INDEX NAME)

34552-13-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(effects of halogen introduction at C-5 position of imidacloprid pyridine ring upon insecticidal activity)

RN

34552-13-1 HCAPLUS

3-Pyridinamine, 2-chloro-5-methyl- (CA INDEX NAME) CN

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:729612 HCAPLUS

DOCUMENT NUMBER: 143:211723

TITLE: Preparation of 3-benozylaminobenzamide derivatives and

related amides derivatives as insecticides Yoshida, Kei; Wakita, Takeo; Katsuta, Hiroyuki; Kai, INVENTOR(S):

Akiyoshi; Chiba, Yutaka; Takahashi, Kiyoshi; Kato, Hiroko; Kawahara, Nobuyuki; Nomura, Michikazu; Daido,

Hidenori; Maki, Junji; Banba, Shinichi

PATENT ASSIGNEE(S): Mitsui Chemicals, Inc., Japan

PCT Int. Appl., 264 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

WO											2004-					20041	
	W:										, BG,						
											, EC,						
											, JP,						
											, MK,						
											, SC,						
											, UZ,						
	RW:										, SL,						
		AZ,	BY,	KG,	ΚZ,	MD,	RU,	ΤJ,	TM,	ΑT	, BE,	BG,	CH,	CY,	CZ	DE,	DK,
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IS	, IT,	LT,	LU,	MC,	NL	PL,	PT,
		RO,	SE,	SI,	SK,	TR,	BF,	ΒJ,	CF,	CG	, CI,	CM,	GΑ,	GN,	GQ	, GW,	ML,
		MR,	NE,	SN,	TD,												
AU	2004	3150	03		A1		2005	0811		ΑU	2004-	3150	03			20041	224
CA	2554	437			A1		2005	0811		CA	2004-	2554	437			20041	224
EP	1714										2004-					20041	
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR	, IT,	LI,	LU,	NL,	SE	MC,	PT,
		ΙE,	SI,	LT,	FΙ,	RO,	CY,	TR,	BG,	CZ	, EE,	HU,	PL,	SK,	IS		
CN	1926	094			A		2007	0307		CN	2004-	8004	2513			20041	224
BR	2004	0184	71		A		2007	0605		BR	2004-	1847	1			20041	224
IN	2006	DN 04:	275		A		2007				2006-					20060	725
MX	2006	PA08.	526		A		2006	1030		MX	2006-	PA85	26			20060	728
KR	8573	12			В1		2008	0905		KR	2006-	7169	69			20060	823
KR	2008	0526	92		A		2008	0611		KR	2008-	7121	45			20080	521
RIORIT	Y APP	LN.	INFO	. :						JP	2004-	1943	8		Α :	20040	128
										JP	2004-	4803	1		Α :	20040	224
										JP	2004-	2090	02	- 1	Α :	20040	715
										WO	2004-	JP19	770	1	W :	20041	224
										KR	2006-	7169	69		A3 :	20060	823
HER S	DURCE	(S):			MARI	PAT	143:	2117	23								

AB The invention aims at providing highly effective insecticides. Anide compds. represented by the general formula (I) (wherein Al, A2, A3, A4 = C, N, or oxidized N; Rl, R2 = H, each optionally substituted alkyl or C1-4 alkylcarbonyl; Gl, G2 = O, S; X's may be the same or different from each other and are each hydrogen, halogeno, C1-3 alkyl, or trifluoromethyl; n = an integer of 0 to 4; Q1 = optionally substituted Ph, naphthyl, or heterocyclic group; baving one or more substituents, at least one of the substituents being C1-4 haloalkoxy, C2-6

perfluoroalkyl, C1-6 perfluoroalkylthio, C1-6 perfluoroalkylsulfinyl, or C1-6 perfluoroalkylsulfonyl) are prepared Thus, 0.09 g benzoyl chloride was added to a stirred solution of  $0.25~\rm g$ 

N-(2,6-dimethyl-4-heptafluoroisopropylphenyl)-3-aminobenzamide and 0.06 g pyridine in 5 mL THF and stirred at room temperature for 1 h to give 92% N-(2,6-dimethyl-4-heptafluoroisopropylphenyl)-3-(benzoylamino)benzamide (II). II at 100 ppm controlled  $\geq$ 70% 2nd-instar larvae of

Spodoptera litura and Plutella xylostella on cabbage leaves.

T 862131-14-4P RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN

(Synthetic preparation); BIOL (Biological Study); PREP (Preparation); USES (Uses) (preparation) 3-benozylaminobenzamide and related amide derivs, as

(preparation of 3-benozylaminobenzamide and related amide derivs. as insecticides)

RN 862131-14-4 HCAPLUS

CN 3-Pyridinecarboxamide, 5,6-dichloro-N-[3-[[[2,6-dimethyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl]amino]carbonyl]phenyl]- (CA INDEX NAME)

IT 862132-96-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of 3-benozylaminobenzamide and related amide derivs. as insecticides)

RN 862132-96-5 HCAPLUS

CN 3-Pyridinamine, 2-chloro-4-methyl-6-[2,2,2-trifluoro-1-(trifluoromethyl)ethoxyl- (CA INDEX NAME)

REFERENCE COUNT:

2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:696875 HCAPLUS

DOCUMENT NUMBER: 143:155307

TITLE: Process for the manufacture of 2,3-dichloropyridine

INVENTOR(S): Shapiro, Rafael

PATENT ASSIGNEE(S): E.I. Dupont de Nemours and Company, USA

SOURCE: PCT Int. Appl., 23 pp.

CODEN: PIXXD2 DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	FENT										ICAT					ATE	
	2005															0050	121
	₩:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,
		NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,
		TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW
	RW:	BW.	GH,	GM.	KE.	LS.	MW.	MZ.	NA.	SD,	SL,	SZ.	TZ.	UG,	ZM.	ZW.	AM.
											BE,						
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	IS,	IT,	LT,	LU,	MC,	NL,	PL,	PT,
		RO.	SE,	SI.	SK.	TR.	BF.	BJ,	CF.	CG,	CI,	CM,	GA,	GN,	GO,	GW,	ML,
					TD,												
ΑU	2005	2065	76		A1		2005	0804		AU 2	005-	2065	76		2	0050	121
CA	2553	850			A1		2005	0804		CA 2	005-	2553	850		2	0050	121
ΕP	1706	381			A2		2006	1004		EP 2	005-	7120	75		2	0050	121
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
		IE.	SI,	LT,	LV,	FI,	RO,	CY,	TR,	BG,	CZ,	EE.	HU,	PL,	SK,	IS,	YU
CN	1910	152			A		2007	0207		CN 2	005-	8000	2691		2	0050	121
BR	2005	0065	02		A		2007	0227		BR 2	005-	6502			2	0050	121
JP	2007	5230	65		T		2007	0816		JP 2	006-	5514	37		2	0050	121
US	2007	0161	797		A1		2007	0712		US 2	006-	5836	35		2	0060	620
IN	2006	DN03	640		A		2007	0824			006-						
MX	2006	PA08:	208		A		2006	0831		MX 2	006-	PA82	08		2	0060	719
RIT	Y APP	LN.	INFO	. :						US 2	004-	5390	68P		P 2	0040	123
										WO 2	005-1	JS24	62		W 2	0050	121
8 80	DURCE	(S):			CASI	REAC	T 14	3:15	5307								
Αı	netho	d for	r pr	epar.	ing :	2,3-	dich	loro	oyri	dine	is o	disc	lose	d in	whi	ch	

ОТН AB

3-amino-2-chloropyridine is contacted with an alkali metal nitrite in the presence of aqueous hydrochloric acid to form a diazonium salt; and the diazonium salt is subsequently decomposed in the presence of copper catalyst wherein at least about 50% of the copper is the copper(II) oxidation state.

2402-77-9P, 2,3-Dichloropyridine

RL: IMF (Industrial manufacture); PREP (Preparation) (process for the manufacture of 2,3-dichloropyridine)

2402-77-9 HCAPLUS RN

CN Pyridine, 2,3-dichloro- (CA INDEX NAME)

PRI

94770-75-9P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(process for the manufacture of 2,3-dichloropyridine)

94770-75-9 HCAPLUS RN

CN 3-Pyridinamine, 2-chloro-, hydrochloride (1:1) (CA INDEX NAME)

HC1

6298-19-7, 3-Amino-2-chloropyridine RL: RCT (Reactant); RACT (Reactant or reagent)

(process for the manufacture of 2.3-dichloropyridine) 6298-19-7 HCAPLUS

CN 3-Pyridinamine, 2-chloro- (CA INDEX NAME)

L9 ANSWER 8 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:238994 HCAPLUS

DOCUMENT NUMBER: 142:316820

TITLE: Preparation of hetero-bicyclic fused thieno-pyran compounds as antibacterial, antiviral, antitumor, and

pharmaceutically active agents

INVENTOR(S): Koul, Anil; Klebl, Bert; Mueller, Gerhard; Missio,

Andrea; Schwab, Wilfried; Hafenbradl, Doris; Neumann, Lars; Sommer, Marc-Nicola; Mueller, Stefan; Hoppe, Edmund; Freisleben, Achim; Backes, Alexander; Hartung, Christian; Felber, Beatrice; Zech, Birgit; Engkvist, Ola; Keri, Gyoergy; Oerfi, Laszlo; Banhegyi, Peter; Greff, Zoltan; Horvath, Zoltan; Varga, Zoltan; Marko,

Peter; Pato, Janos; Szabadkai, Istvan; Szekelyhidi,

Zsolt; Waczek, Frigyes

PATENT ASSIGNEE(S): Axxima Pharmaceuticals A.-G., Germany

PCT Int. Appl., 259 pp.

SOURCE: CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	TENT									APPL						ATE		
WC	2005	0238	18		A2		2005	0317								0040	910	
		GE, LK, NO, TJ, BW, AZ, EE,	CO, GH, LR, NZ, TM, GH, BY, ES,	CR, GM, LS, OM, TN, GM, KG,	CU, HR, LT, PG, TR, KE, KZ,	CZ, HU, LU, PH, TT, LS, MD, GB,	DE, ID, LV, PL, TZ, MW, RU, GR,	DK, IL, MA, PT, UA,	DM, IN, MD, RO, UG, NA, TM, IE,	DZ, IS, MG, RU, US, SD, AT, IT,	EC, JP, MK, SC, UZ, SL, BE, LU,	EE, KE, MN, SD, VC, SZ, BG, MC,	EG, KG, MW, SE, VN, TZ, CH, NL,	ES, KP, MX, SG, YU, UG, CY, PL,	FI, KR, MZ, SK, ZA, ZM, CZ, PT,	GB, KZ, NA, SL, ZM, ZW, DE, RO,	GD, LC, NI, SY, ZW AM, DK, SE,	
US PRIORIT	3 2007 Y APF	SN, 2703 750 804 AT, IE, 20275 LN.	BE, SI, 962 INFO	CH, LT,	A1 A1 A2 DE, LV, A1	DK, FI,	2005 2005 2006 ES, RO, 2007	0317 0317 0621 FR, MK, 1129	GB, CY,	AU 21 CA 21 GR, AL, US 21 EP 21 US 21	004- 004- 1T, TR, 007- 003- 004- 004- 004- 004-	2703: 2572: 7869: LI, BG, 5971: 2061: 5026: 4891: 5513: 1281: 5770: EP10:	94 750 34 LU, CZ, 20 6 06P 41P 4 43P 161	NL, EE,	21 22 SE, HU, 21 A 21 A 21 A 21 A 21 A 21 A 21 A 21	0040 0040 0040 MC, PL, 0070 0030 0040 0040	910 910 910 PT, SK, 306 910 915 302 310 528	HR
OTHER S	OURCE	(S):			CAS	REAC	T 14	2:31	6820	; MAI	RPAT	142	:316	820				

AB Described are hetero-bicyclic compds. such as 4,5,6,7-tetrahydro-benzo[b]thiophene-3-carboxylic acid amides, 4,7-dlhydro-5H-thieno[2,3-c]thiopyran-3-carboxylic acid amides, or benzo[b]thiophene-3-carboxylic acid amides, or benzo[b]thiophene-3-carboxylic acid amides I, wherein XI is S, O, NH, substituted nitrogen; Y1-Y4 form with the ring containing XI a hetero-bicyclic ring system; RI is H, alkyl, cycloalkyl, heterocycle, alkynyl, substituted Ph, acyl, benzyl; R2 is amide, thioamide, sulfonamide, ester, sulfonyl; R3 is H, acyl, thio-ketone, sulfonyl, amide, thio-amide, diketone-amide, ester, thio-ester; and pharmaceutically acceptable salts thereof, the use of these derivs. For the prophylaxis and/or treatment of various diseases such as infectious diseases, including mycobacteria-induced infections and

opportunistic diseases, prion diseases, immunol. diseases, autoimmune diseases, bipolar and clin. disorders, cardiovascular diseases, cell proliferative diseases, diabetes, inflammation, transplant rejections, erectile dysfunction, neurodegenerative diseases and stroke, as well as compns. containing at least one hetero-bicyclic compound and/or pharmaceutically

acceptable salts thereof. Furthermore, reaction procedures for the synthesis of the hetero-bicyclic compound are disclosed. Thus, benzo[b]thiophen-carboxylic acid amide II was prepared and tested in vitro for its inhibitory effect on mycobacterial protein kinase G (IC50 = 0.1-1.0 MM).

IT 848327-78-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (USes)

(preparation of heterobicyclic fused thienopyran compds. as antibacterial antiviral antitumor and pharmaceutically active agents)

RN 848327-78-6 HCAPLUS

CN 5H-Thieno[2,3-c]pyran-3-carboxamide,

2-[[[(5,6-dichloro-3-pyridinyl)amino]carbonyl]amino]-4,7-dihydro- (CA INDEX NAME)

IT 6298-19-7

RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of heterobicyclic fused thienopyran compds. as antibacterial antiviral antitumor and pharmaceutically active agents)

RN 6298-19-7 HCAPLUS

CN 3-Pyridinamine, 2-chloro- (CA INDEX NAME)

L9 ANSWER 9 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:238985 HCAPLUS

DOCUMENT NUMBER: 142:316863

TITLE: Preparation of heteroaryl fused pyridines, pyrazines,

and pyrimidines as CRF-1 receptor ligands Ge, Ping; Horvath, Raymond F.; Zhang, Lu Yan;

Yamaguchi, Yasuchika; Kaiser, Bernd; Zhang, Xuechun;

INVENTOR(S):

Zhang, Suoming; Zhao, He; John, Stanly; Moorcroft,

Neil; Shutske, Greg

PATENT ASSIGNEE(S): Neurogen Corporation, USA; Aventis Pharmaceuticals

SOURCE: PCT Int. Appl., 290 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

PATENT	NO.			KIN		DATE		- 1	APPL	ICAT	ION	NO.		D	ATE	
WO 200 WO 200	50238 50238	 06 06		A2		2005 2005	0317 0602	1	WO 2	004-	US28	899		2	0040	903
	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,								
						DE,										
						ID,										
						LV,										
						PL,										
						TZ,										
RW	: BW,															
						RU,										
						GR, CF,										
		TD,		Dr,	ы,	CF,	CG,	CI,	CM,	GA,	GIV,	GQ,	GW,	PIL,	PIR,	NE,
AU 200	42707	13	10	A1		2005	0317		AII 2	004-	2707	13		2	0040	903
CA 253	7829			A1		2005	0317		CA 2	004-	2537	829		2	0040	903
US 200	50113	379		A1		2005	0526	1	US 2	004-	9338	34		2	0040	903
EP 168																
	AT,															
	IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	PL,	SK,
BR 200	40140	87		A		2006	1031	- 1	BR 2	004-	1408	7		2	0040	903
BR 200 CN 187 JP 200 MX 200	8773			A		2006	1213		CN 2	004-	8003	2703		2	0040	903
JP 200	75042	71		T		2007	0301		JP 2	006-	5262	10		2	0040	903
MX 200	6PA02	556		A		2006	1030	1	MX 2	006-	PA25	56		2	0060	303
NO 200	60011	80		A		2006	0331	1	NO 2	006-	1180			2	0060	314
NO 200 US 200 ORITY AP	60199	823		A1		2006	0907	1	US 2	006-	3896	46		_ 2	0060	324
ORITY AP	PLN.	INFO	. :						US 2	003-	5004	14P		P 2	0030	905
										004- 004-					0040 0040	

GI

Substituted heteroaryl fused pyridine, pyrazine, and pyrimidine compds. I, wherein E is a single bond, O, S(O)m, substituted amine, alkylidene; m is 0-2; Ar is chosen from: substituted Ph, substituted 1-naphthyl and 2-naphthyl, substituted heteroaryl, said heteroaryl having from 1 to 3 rings, 5 to 7 ring members in each ring and, in at least one of said rings, from 1 to about 3 heteroatoms selected from the group consisting of N. O. and S; R is oxygen or absent; Z1 is substituted alkylidene; Z2 is nitrogen, oxygen, sulfur, substituted alkylidene, substituted amine; Z3 is nitrogen, oxygen, sulfur, sulfoxide, sulfone, substituted alkylidene; Z4 and Z5 are independently substituted alkylidene or substituted amine, that act as selective modulators of CRF-1 receptors are provided. These compds. are useful in the treatment of a number of CNS and peripheral disorders, particularly stress, anxiety, depression, cardiovascular disorders, and eating disorders. Methods of treatment of such disorders and well as packaged pharmaceutical compns. are also provided. Compds. of the invention are also useful as probes for the localization of CRF receptors and as stds. in assays for CRF receptor binding. Methods of using the compds. in receptor localization studies are given. Thus, pyrrolo-pyrazine II was prepared and tested as selective modulators of CRF-1 receptors. This method includes inhibiting the binding of CRF to CRF receptors in vivo, e.g., in a patient given an amount of I that would be sufficient to inhibit the binding of CRF to CRF receptors in vitro. Compds. of the invention are useful in treating a variety of conditions including affective disorders, anxiety disorders, stress disorders, eating disorders, and drug addiction. Affective disorders include all types of depression, bipolar disorder, cyclothymia, and dysthymia. Anxiety disorders include generalized anxiety disorder, panic, phobias and obsessive-compulsive disorder. Stress-related disorders include post-traumatic stress disorder, hemorrhagic stress, stress-induced psychotic episodes, psychosocial dwarfism, stress headaches, stress-induced immune systems disorders such as stress-induced fever, and stress-related sleep disorders. Eating disorders include anorexia nervosa, bulimia nervosa, and obesity. The most preferred compds. of the invention are suitable for pharmaceutical use in treating human patients. Preferably, administration of such preferred compds. of the invention at certain doses (i.e., doses yielding therapeutically effective in vivo concns. or preferably doses of 10, 50, 100, 150, or 200 mg/kg administered parenterally or preferably orally) does not result in prolongation of heart OT intervals.

IT 34552-13-1P 55933-92-1P 848365-58-2P
848366-55-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)

(preparation of heteroaryl fused pyridines, pyrazines, and pyrimidines as CRF-1 receptor ligands)

RN 34552-13-1 HCAPLUS

CN 3-Pyridinamine, 2-chloro-5-methyl- (CA INDEX NAME)

RN 55933-92-1 HCAPLUS

CN 2-Pyridinamine, 3,5,6-trichloro-N-methyl- (CA INDEX NAME)

RN 848365-58-2 HCAPLUS

CN 3-Pyridinamine, 2-chloro-6-[2-methoxy-4-(trifluoromethoxy)phenyl]-5-methyl-(CA INDEX NAME)

RN 848366-55-2 HCAPLUS

CN 2-Pyridinamine, 3,5,6-trichloro-N-(3-ethyl-2-penten-1-yl)-N-methyl- (CA INDEX NAME)

L9 ANSWER 10 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:354920 HCAPLUS

DOCUMENT NUMBER: 140:375171

TITLE: Preparation of benzimidazoles as vanilloid receptor

ligands

INVENTOR(S): Balan, Chenera; Bo, Yunxin; Dominguez, Celia; Fotsch, Christopher H.; Gore, Vijay K.; Ma, Vu Van; Norman,

Mark H.; Ognyanov, Vassil I.; Qian, Yi-xin; Wang,

Xianghong; Xi, Ning; Xu, Shimin

PATENT ASSIGNEE(S): Amgen Inc., USA SOURCE: PCT Int. Appl.,

COURCE: PCT Int. Appl., 259 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PA:	FENT	NO.			KIN	D	DATE				ICAT				D	ATE	
	WO	2004	0355	 49		A1	-	2004	0429							2	0031	016
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	GE,
			GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,
			LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,
			PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	TJ,	TM,	TN,
			TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW			
		RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,
			KG,	KZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
			FI,	FR,	GB,	GR,	HU,	IE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,
			BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG
	CA	2501	539			A1		2004	0429		CA 2	003-	2501	539		2	0031	016
	AU	2003	3014	36		A1		2004	0504		AU 2	003-	3014	36		2	0031	016
	US	2004	0152															
	EP	1551	811			A1		2005	0713		EP 2	003-	8090	75		2	0031	016
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
			IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	SK	
	JP	2006	5055	70		T		2006	0216		JP 2	004-	5453	82		2	0031	016
	MX	2005	PA03	948		A		2005	0617		MX 2	005-	PA39	48		2	0050	413
	AU	2008	2022	57		A1		2008	0612		AU 2	-800	2022	57		2	0080	521
PRIO	RIT	Y APP	LN.	INFO	. :						US 2	002-	4197	91P	1	P 2	0021	017
											AU 2	003-	3014	36	1	A3 2	0031	016
											WO 2	003-	US32	823	1	W 2	0031	016

OTHER SOURCE(S): MARPAT 140:375171

GI

AB Title compds. I [wherein B, D = independently substituted un/partially/saturated C1-C3 chain, with provisos; A, C = independently N, CH and derivs. with at least one of A and C is N; E, F, G, H = independently N, CH and derivs.; R1 = H, (CH2)mR3 and derivs.; m = 0.1 or 2; R3 =independently (un)substituted un/partially/saturated 5, 6, or 7-membered monocyclic, or 6-, 7-, 8-, 9-, 10- or 11-membered bicyclic ring containing 0-4 heteroatoms selected from N, O, and S] were prepared as vanilloid receptor ligands (no data). For example, II was prepared by alkylation of piperazine with 2-chloro-6-trifluoromethyl-1H-benzimidazole(preparation given) in DMSO and reaction with 2,6-dichlorobenzyl bromide in DMF. Tests for capsaicin agonist and antagonist properties at vanilloid receptor type 1 are given (no data). I are useful in the treatment of vanilloid-receptor-mediated diseases, such as inflammatory or neuropathic pain and diseases involving sensory nerve function such as asthma, rheumatoid arthritis, osteoarthritis, inflammatory bowel disorders, urinary incontinence, migraine and psoriasis (no data).

54127-29-6P, 5,6-Dichloronicotinovl chloride 56055-54-0P , 5,6-Dichloronicotinic acid methyl ester 71690-05-6P, 5,6-Dichloropyridine-3-carboxaldehyde 75291-84-8P, 5.6-Dichloronicotinamide 120800-05-7P. 1-(5,6-Dichloropyridin-3-yl)ethanone 144598-71-0P, (5,6-Dichloropyridin-3-ylmethyl) methylamine 162327-73-3P, 5,6-Dichloro-N-methoxy-N-methylnicotinamide 202395-72-0P, 2,3-Dichloro-5-(methoxymethyl)pyridine 287714-93-6P, 5-Bromomethyl-2,3-dichloropyridine 683243-82-5P 683243-85-8P, 2-(5,6-Dichloropyridin-3-vlmethyl)isoindole-1,3dione 683243-86-9P, N-(5,6-Dichloropyridin-3-ylmethyl)acetamide 683243-89-2P, N-(5,6-Dichloropyridin-3-ylmethyl)-N-methylacetamide 683243-92-7P, 2-(5,6-Dichloropyridin-3-yl)propan-2-ol RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (intermediate; preparation of benzimidazoles as vanilloid receptor ligands)

RN 54127-29-6 HCAPLUS
CN 3-Pyridinecarbonyl chloride, 5,6-dichloro- (CA INDEX NAME)

RN 56055-54-0 HCAPLUS

CN 3-Pyridinecarboxylic acid, 5,6-dichloro-, methyl ester (CA INDEX NAME)

RN 71690-05-6 HCAPLUS

CN 3-Pyridinecarboxaldehyde, 5,6-dichloro- (CA INDEX NAME)

RN 75291-84-8 HCAPLUS

CN 3-Pyridinecarboxamide, 5,6-dichloro- (CA INDEX NAME)

RN 120800-05-7 HCAPLUS

CN Ethanone, 1-(5,6-dichloro-3-pyridinyl)- (CA INDEX NAME)

- RN 144598-71-0 HCAPLUS
- CN 3-Pyridinemethanamine, 5,6-dichloro-N-methyl- (CA INDEX NAME)

- RN 162327-73-3 HCAPLUS
- CN 3-Pyridinecarboxamide, 5,6-dichloro-N-methoxy-N-methyl- (CA INDEX NAME)

- RN 202395-72-0 HCAPLUS
- CN Pyridine, 2,3-dichloro-5-(methoxymethyl)- (CA INDEX NAME)

- RN 287714-93-6 HCAPLUS
- CN Pyridine, 5-(bromomethyl)-2,3-dichloro- (CA INDEX NAME)

- RN 683243-82-5 HCAPLUS
- CN 3-Pyridinemethanol, 5,6-dichloro-α-methyl- (CA INDEX NAME)

RN 683243-85-8 HCAPLUS
CN 1H-Isoindole-1,3(2H)-dione, 2-[(5,6-dichloro-3-pyridinyl)methyl]- (CA
INDEX NAME)

RN 683243-86-9 HCAPLUS

CN Acetamide, N-[(5,6-dichloro-3-pyridinyl)methyl]- (CA INDEX NAME)

RN 683243-89-2 HCAPLUS

 ${\tt CN \quad Acetamide, \ N-[(5,6-dichloro-3-pyridinyl)methyl]-N-methyl- \quad (CA \ INDEX \ NAME)}$ 

RN 683243-92-7 HCAPLUS

CN 3-Pyridinemethanol, 5,6-dichloro- $\alpha$ , $\alpha$ -dimethyl- (CA INDEX NAME)

IT 117519-09-2, 3-Amino-2-chloro-6-(trifluoromethyl)pyridine
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of benzimidazoles as vanilloid receptor ligands) RN 117519-09-2 HCAPLUS

CN 3-Pyridinamine, 2-chloro-6-(trifluoromethyl)- (CA INDEX NAME)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 11 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:836829 HCAPLUS

DOCUMENT NUMBER: 139:323519

TITLE: Preparation of imidazoarenes as prostaglandin E2

subtype EP4 receptor antagonists for treatment of IL-6

involved diseases

INVENTOR(S): Shimojo, Masato; Taniguchi, Kana

PATENT ASSIGNEE(S): Pfizer Pharmaceuticals Inc., Japan; Pfizer Inc.

SOURCE: PCT Int. Appl., 427 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	TENT I				KIN	D	DATE			APPL		ION				ATE	
WO	2003	0863	71		A2 A3		2003 2004	1023		WO 2						0030	
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	NZ,	OM,
		PH,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SK,	SL,	TJ,	TM,	TN,	TR,	TT,	TZ,
		UA,	UG,	US,	UZ,	VN,	YU,	ZA,	ZM,	ZW							
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,
		KG,	KZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
		FI,	FR,	GB,	GR,	HU,	IE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,
		BF,	BJ,	CF,	CG,	CI,	CM,	GA,	GN,	GO,	GW,	ML,	MR,	NE,	SN,	TD,	TG

CA 2481535	A1	20031023	CA 2003-2481535	20030403
AU 2003214525	A1	20031027	AU 2003-214525	20030403
AU 2003214525	B2	20080925		
EP 1499305	A2	20050126	EP 2003-710104	20030403
R: AT, BE, CH,	DE. DK	, ES, FR,		
IE, SI, LT			CY, AL, TR, BG, CZ,	
BR 2003009200	A	20050222	BR 2003-9200	
CN 1658847	A	20050824	CN 2003-813401	20030403
JP 2005533756	T	20051110	JP 2003-583392	20030403
RU 2285527	C2	20061020	RU 2004-130320	20030403
NZ 535748	A	20070629	NZ 2003-535748	20030403
CN 101023946	A	20070829	CN 2007-10084937	20030403
US 20030236260	A1	20031225	US 2003-411491	20030410
US 7148234	B2	20061212		
MX 2004PA09243	A	20050608	MX 2004-PA9243	20040923
NO 2004004462	A	20050111	NO 2004-4462	20041020
US 20070066618	A1	20070322	US 2006-556414	20061103
PRIORITY APPLN. INFO.:			US 2002-372364P	P 20020412
			CN 2003-813401	A3 20030403
			WO 2003-IB1310	W 20030403
			US 2003-411491	A3 20030410
OTHER SOURCE(S):	MARPAT	139:3235	19	

GI

- \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT \*
- AB The present invention relates to the use of a prostaglandin E2 (PGE2) subtype EP4 receptor ligand in the manufacture of a medicament for the treatment of interleukin 6 (IL-6) involved diseases, such as alc. cirrhosis, amyloidosis, atherosclerosis, cardiac disease, sclerosis, and organ transplantation reactions (no data). The invention also relates to the assay which comprises culturing peripheral whole blood with a test compound and determining the effect of the compound on PGE2-induced whole blood cells activation. Three hundred eighty title compds. I [wherein Y1-Y4 = N, CH, CL; R1 = H, (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, alkoxy, pyrrolidinyl, amino, etc.; A = (un)substituted 5-6 membered (un) substituted monocyclic (hetero) aromatic ring; B = halo-substituted alkylene, cycloalkylene, alkenylene, alkynylene, alkyleneoxy, etc., optionally substituted with an oxo or alkyl group; W = amino, O, S, bond, etc.; R2 = H, OH, alkyl, alkoxy; Z = 5-12 membered (un)substituted monocyclic or bicyclic (hetero)aryl; L = halo, alkyl, haloalkyl, OH, alkoxy, haloalkoxy, alkylthio, NO2, amino, etc.] were prepared Thus, cycloaddn. of 2-[4-[(3-amino-4,6-dimethyl-2-pyridinyl)amino]phenyl]ethanol (4-step preparation given) with propionyl chloride in toluene provided 2-[4-(2-ethyl-5,7-dimethyl-3H-imidazo[4,5-b]pyridin-3-yl)phenyl]ethyl propionate, which was treated with aqueous LiOH to give the ethanol derivative (86%). Chlorination (90%) using thionyl chloride, conversion to the azide (85%), and Pd/C catalyzed hydrogenation afforded the amine (94%). Coupling of the amine with p-toluenesulfonyl isocyanate in CH2Cl2 gave II (56%). The latter significantly inhibited IL-6 secretion by PGE2 in ConA-stimulated human peripheral blood mononuclear cells (PBMC). 415908-43-9P, 2-[4-[(5,6-Dichloro-3-nitro-2-
- pyridinyl)amino|phenyl|ethanol 415908-45-1P,

2-[4-[(3-Amino-5,6-dichloro-2-pyridiny1)amino]pheny1]ethano1 415911-46-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent) (preparation of imidazoarene prostaglandin EP4 receptor antagonists for treatment of IL-6 involved diseases)

415908-43-9 HCAPLUS RN

Benzeneethanol, 4-[(5,6-dichloro-3-nitro-2-pyridinyl)amino]- (CA INDEX CN NAME)

415908-45-1 HCAPLUS

CN Benzeneethanol, 4-[(3-amino-5,6-dichloro-2-pyridinyl)amino]- (CA INDEX

RN 415911-46-5 HCAPLUS

CN Carbamic acid, [2-[4-[(3-amino-2-chloro-6-methyl-4pvridinvl)amino|phenvl]ethvl]-, 1,1-dimethvlethvl ester (9CI) (CA INDEX NAME)

ANSWER 12 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN 2002:706542 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER:

137:353202 TITLE:

Synthesis, Nicotinic Acetylcholine Receptor Binding, and Antinociceptive Properties of

2-exo-2-(2',3'-Disubstituted

5'-pyridiny1)-7-azabicyclo[2.2.1]heptanes: Epibatidine

Analogues

AUTHOR(S): Carroll, F. Ivy; Lee, Jeffrey R.; Navarro, Hernan A.; Ma, Wei; Brieaddy, Lawrence E.; Abraham, Philip;

Damaj, M. I.; Martin, Billy R.

CORPORATE SOURCE: Chemistry and Life Sciences, Research Triangle

Institute, Research Triangle Park, NC, 27709, USA SOURCE: Journal of Medicinal Chemistry (2002), 45(21),

4755-4761

CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society

PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:353202

GI

AB A number of 2',3'-disubstituted epibatidine analogs were synthesized and evaluated in vitro for potency at nicotinic acetylcholine receptors (nAChRs) and in vivo for antinociception activity in the tail-flick and hot-plate models of acute pain and for their ability to affect core body temperature Compds. that possessed electron-withdrawing groups (F, Cl, Br, and I) in both the 2'- and the 3'-positions showed affinities at the nAChR similar to epibatidine. However, in vivo efficacy did not correlate with affinity. 2-Exo-(3'-Amino-2'-chloro-5'-pyridinyl)-7azabicyclo[2.2.1]heptane (I), an epibatidine analog possessing an electron-releasing amino group in the 3'-position, produced the highest affinity. Compound I was also the most selective epibatidine analog with a Ki of 0.001 nM at αB nAChRs, which is 26 times greater than that of epibatidine, and a  $\alpha\beta/\alpha$ 7 Ki ratio of 14 000, twice that of epibatidine. In vivo testing revealed that this compound potently inhibited nicotine-induced antinociception with AD50 values below 1 μg/kg. Surprisingly, this same compound was also an agonist at higher doses (ED50 .apprx.20 µg/kg). Thus, the addition of the 3 -amino group to epibatidine confers potent antagonist activity to the compound with little effect on agonist activity. 2,3-Disubstituted epibatidine analogs possessing a 2'-amino group combined with a 3'-bromo or 3'-iodo group showed in vitro and in vivo nAChR properties similar to nicotine. 426460-53-9P 426460-57-3P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of disubstituted pyridinyl azabicyclo heptanes as epibatidine analogs, in vitro evaluation of their affinity for nicotinic acetylcholine receptors and in vivo evaluation of their antinociceptive properties in rats)

RN 426460-53-9 HCAPLUS

CN 7-Azabicyclo[2.2.1]heptane, 2-(5,6-dichloro-3-pyridiny1)-, (1R,2R,4S)-rel-(CA INDEX NAME)

Relative stereochemistry.

RN 426460-57-3 HCAPLUS

CN 7-Azabicyclo[2.2.1]heptane, 2-(5,6-dichloro-3-pyridinyl)-, hydrochloride (1:1), (1R,2R,4S)-rel- (CA INDEX NAME)

Relative stereochemistry.

● HCl

IT 426461-98-5P 426463-09-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(preparation of disubstituted pyridinyl azabicyclo heptanes as epibatidine analogs, in vitro evaluation of their affinity for nicotinic acetylcholine receptors and in vivo evaluation of their antinociceptive

properties in rats) RN 426461-98-5 HCAPLUS

CN 7-Azabicyclo[2.2.1]heptane-7-carboxylic acid,

2-(5-amino-6-chloro-3-pyridinyl)-, 1,1-dimethylethyl ester, (1R,2R,4S)-rel- (CA INDEX NAME)

Relative stereochemistry.

RN 426463-09-4 HCAPLUS CN 3-Pyridinamine, 2-chloro-5-iodo- (CA INDEX NAME)

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 13 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:368215 HCAPLUS DOCUMENT NUMBER: 136:386020

TITLE: Preparation of pyridinylbicycloheptanes and related compounds for promoting smoking cessation and for

other indications.

INVENTOR(S): Carroll, F. Ivy

PATENT ASSIGNEE(S): Research Triangle Institute, USA

SOURCE: PCT Int. Appl., 115 pp.

CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT I	.00			KIN	D	DATE			APPL	ICAT:	ION I	NO.		D.	ATE	
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WO 2002	0379	27		A2		2002	0516		WO 2	001-	US42	927		2	0011	108
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BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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                                                                    20001108
     IIS 6538010
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            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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PRIORITY APPLN. INFO.:
                                             US 2000-708095
                                                                 A 20001108
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                                                                 A3 20011108
                                             WO 2001-US42927
                                                                 W 20011108
                                            US 2003-337401
                                                                A1 20030107
OTHER SOURCE(S):
                        MARPAT 136:386020
GΙ
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AB A method of training a smoker to quit smoking comprises administration of title compds. [I; Al, A2 = H, OH, NRC(INR)NR2, NR2; AlA2 = 0, :NOR, :NR, ONR, :NRNR, :Q = CX, N; ≥1 Q = N, ≥1 Q = CX; X = H, halo, alkenyl, alkynyl, aryl, aralkyl, OH, CHECO2R, COR, NR2, SO2CF3, NO2, N3, cyano, CF3, etc.; R = H, alkyl, alkenyl, alkynyl, aryl, aralkyl]. Thus, 7-tert-butoxycarbonyl-7-exablecylol(2.1]heptene, 2-fluoro-5-iodopyridine, Bu4NCl, KO2CH, and Pd(OAc)2 were stirred 4 days in DMF to give 51% 7-tert-butoxycarbonyl-2-exablecylol(2.1]heptene). This was stirred with CF3CO2H in CH2C12 to give 66% 2-exo-(5-(2-fluoropyridinyl))-7-axablecylol(2.2.1]heptane. This was stirred with CF3CO2H in CH2C12 to give 66% 2-exo-(5-(2-fluoropyridinyl))-7-axablecylol(2.2.1]heptane. In an α4β2 nACNR-epibatidine binding assay using rat cerebral cortex homogenate, tested compds. showed IC50 = 0.005 nM to >1000 nM.

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyridinylbicycloheptanes and related compds. for promoting smoking cessation and for other indications)

RN 426460-53-9 HCAPLUS

N 7-Azabicyclo[2.2.1]heptane, 2-(5,6-dichloro-3-pyridinyl)-, (1R,2R,4S)-rel-(CA INDEX NAME)

Relative stereochemistry.

RN 426460-57-3 HCAPLUS CN 7-Azabicyclo(2, 2, 11b)

7-Azabicyclo[2.2.1]heptane, 2-(5,6-dichloro-3-pyridinyl)-, hydrochloride (1:1), (1R,2R,4S)-rel- (CA INDEX NAME)

Relative stereochemistry.

HCl

RN 97966-01-3 HCAPLUS

CN Pyridine, 2,3-dichloro-5-iodo- (CA INDEX NAME)

RN 426461-98-5 HCAPLUS

CN 7-Azabicyclo[2.2.1]heptane-7-carboxylic acid, 2-(5-amino-6-chloro-3-pyridinyl)-, 1,1-dimethylethyl ester, (IR, ZR, 45)-rel- (CA INDEX NAME) Relative stereochemistry.

RN 426463-09-4 HCAPLUS CN 3-Pyridinamine, 2-chloro-5-iodo- (CA INDEX NAME)

L9 ANSWER 14 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:314939 HCAPLUS

DOCUMENT NUMBER: 136:340677

TITLE: Preparation of imidazoarenes as antiinflammatory and

analgesic agents.

INVENTOR(S): Nakao, Kazunari; Okumura, Yoshiyuki; Matsumizu,

Miyako; Uneo, Naomi; Hashizume, Yoshinobu; Kato, Tomoki; Kawai, Akiyoshi; Miyake, Yoriko; Nukui, Seiji;

Shinjyo, Katsuhiro; Taniguchi, Kana

PATENT ASSIGNEE(S): Pfizer Pharmaceuticals Inc., Japan; Pfizer Inc.

SOURCE: PCT Int. Appl., 461 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2 PATENT INFORMATION:

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						_									-		
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WO	2002	0329	00		A3		2002	8080									
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		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PH,	PL,
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US	2002	0107	273		A1		2002	8080		US	200	01-9	9776:	21			20011	.015
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										EP	200	0.7 - 2	1/8/1	02		A3	20011 20011	.015
										UP.	200	02-3	0362	21		A.3	2001) 2001)	015
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										HO	201	01-	7716	40			20011	
OTUED CO	TIDOR	/e).			MADI	27.50	126.	3406	77	05	201	04-	, ,10	20		n)	20040	1204

OTHER SOURCE(S): MARPAT 136:340677

Title compds. [I; Y1-Y4 = N, CH, CL; R1 = H, (substituted) alkyl, alkenyl, AR alkynyl, cycloalkyl, alkoxy, pyrrolidinyl, amino, etc.; A = (substituted) 5-6 membered monocyclic aromatic ring optionally containing up to 3 heteroatoms selected from O, N, S, etc.; B = halo-substituted alkylene, cycloalklylene, alkenylene, alkynylene, alkyleneoxy, etc., optionally substituted with an oxo group; W = amino, O, S, bond, etc.; R2 = H, OH, alkyl, alkoxy; Z = 5-12 membered (substituted) monocyclic or bicyclic aryl optionally containing up to 3 heteroatoms selected from O, N and S, etc.; L = halo, alkyl, haloalkyl, OH, alkoxy, haloalkoxy, alkylthio, NO2, amino, etc.], were prepared as prostaglandin E2 receptor antagonists, preferably as EP4 receptor antagonists. Thus, to 2-[4-(2-ethyl-5,7-dimethyl-3H-imidazo[4,5-b]pyridin-3-yl)phenyl]ethylamine (preparation given) in CH2C12 was added p-toluenesulfonyl isocyanate followed by stirring for 3 h to give 56% 2-ethyl-5,7-dimethyl-3-[4-[2-[[[(4methylphenyl)sulfonyl]amino]carbonyl]amino]ethyl]phenyl]-3H-imidazo[4,5b]pyridine. Preferred I inhibited PGE2-induced thermal hyperalgesia in rats with ED50<60 mg/kg.

IT 415908-43-9P 415908-45-1P 415911-46-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of imidazoarene prostaglandin EP4 receptor antagonists as antiinflammatory and analgesic agents)

RN 415908-43-9 HCAPLUS

CN Benzeneethanol, 4-[(5,6-dichloro-3-nitro-2-pyridinyl)amino]- (CA INDEX NAME)

RN 415908-45-1 HCAPLUS

CN Benzeneethanol, 4-[(3-amino-5,6-dichloro-2-pyridinyl)amino]- (CA INDEX NAME)

RN 415911-46-5 HCAPLUS

CN Carbamic acid, [2-[4-[(3-amino-2-chloro-6-methyl-4-pyridinyl)amino]phenyl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX

NAME)

L9 ANSWER 15 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:314767 HCAPLUS

DOCUMENT NUMBER: 136:340676

TITLE: Preparation of benzimidazole derivatives as prostaglandin EP4 receptor inhibitors to treat

rheumatoid arthritis

INVENTOR(S): Audoly, Laurent; Okumura, Takako; Shimojo, Masato PATENT ASSIGNEE(S): Pfizer Pharmaceuticals Inc., Japan; Pfizer Inc.

SOURCE: PCT Int. Appl., 468 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.				KIND DATE			APPLICATION NO.										
WO	2002	0324	22		A2 20020425 A3 20020725			WO 2001-IB1942									
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       PT 1326864 T 20060731 PT 2001-978702
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US 2000-241825P P 20010119
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PRIORITY APPLN. INFO.:
OTHER SOURCE(S): MARPAT 136:340676
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AB Benzimidazole derivs. I wherein Y1-Y4 are independently N, CH, alkyl, alkony, haloalkyl, halo, substituted alkyl, R1 is H, alkyl, alkenyl, alkynyl, cycloalkyl, alkoxy, haloalkoxy, heterocycle; R2 is H, alkyl, alkonyl, alkoxy, OH; Ais substituted heterocycle arom ring; B is haloalkylene, cycloalkylene, alkenylene, alkynylene, oxyalkylene; W is NH, aminoalkyl, O, S, oxime, covalent bond; Z is monocyclic and bicyclic aromatic heterocycle, were prepared as prostaglandin EP4 receptor inhibitors to treat rheumatoid arthritis of rats and human. Also featured is a method of identifying agents that selectively inhibit P4 activity in vivo. Thus, 3-(4-{2}((1(3,4-dichlorophenyl)sulfonyl)amino|carbonyl)amino|cthyl|phenyl)-2-ethyl-5,7-dimethyl-3H-imidazo[4,5-b]pyridine, hydrochloride was prepared and tested in vivo as an agent selectively inhibiting EP4 activity or selectively binding EP4; and measuring joint infiammation, joint swelling, joint sankylosis, interleukin (IL)-6, Sah protein, and/or joint mobility.

pyridinyl)amino]phenyl]ethanol 415908-45-1P, 2-[4-[(3-Amino-5,6-dichloro-2-pyridinyl)amino]phenyl]ethanol 415911-46-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of benzimidazole derivs. as prostaglandin ep receptor inhibitors to treat rheumatoid arthritis)

RN 415908-43-9 HCAPLUS

Benzeneethanol, 4-[(5,6-dichloro-3-nitro-2-pyridinyl)amino]- (CA INDEX NAME)

CN

RN 415908-45-1 HCAPLUS

CN Benzeneethanol, 4-[(3-amino-5,6-dichloro-2-pyridiny1)amino]- (CA INDEX NAME)

415911-46-5 HCAPLUS RN

CN Carbamic acid, [2-[4-[(3-amino-2-chloro-6-methyl-4pyridinyl)amino]phenyl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

L9 ANSWER 16 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:251267 HCAPLUS

DOCUMENT NUMBER: 137:279063

TITLE: Synthesis and biological evaluation of aroylguanidines

related to amiloride as inhibitors of the human

platelet Na+/H+ exchanger AUTHOR(S):

Laeckmann, Didier; Rogister, Francoise; Dejardin,

Jean-Victor; Prosperi-Meys, Christelle; Geczy, Joseph; Delarge, Jacques; Masereel, Bernard

CORPORATE SOURCE: Natural and Synthetic Drugs Research Center,

Department of Medicinal Chemistry, CHU, Universite de

Liege, Liege, B-4000, Belg.

SOURCE: Bioorganic & Medicinal Chemistry (2002), 10(6),

1793-1804

PUBLISHER . DOCUMENT TYPE: LANGUAGE: OTHER SOURCE(S):

CODEN: BMECEP; ISSN: 0968-0896 Elsevier Science Ltd. Journal English CASREACT 137:279063

AB Pyridine and benzene bioisosteres of amiloride such as I and II were synthesized and evaluated for their inhibitory potency against the sodium-hydrogen exchanger involved in intracellular pH regulation. Substituted diaminochloro-2-pyridinecarbonyl and diaminochloro-3-pyridinecarbonyl quanidines are prepared from 2-chloro-6-methyl-3,5-dinitropyridine and 2-methyl-1,5-pentanedinitrile, resp. Dichloro- and trichloropyridine-3-carbonyl guanidines, and simple pyridinecarbonyl and benzoyl guanidines are also prepared Several benzene derivs. and compds. bearing an carbonylguanidine moiety in the meta position of the pyridine nitrogen were much more potent than amiloride, but less so than the pyrazine inhibitor III (R = Et; R1 = Me2CH). II is the most active mol. in assays measuring the reduction in human platelet swelling due to sodium ion uptake and in assays of the inhibition of sodium ion uptake, with IC50 values of 0.8 µM in both assays. Replacement of the pyrazine ring of amiloride III (R = R1 = H) by a pyridine or a Ph ring improved the inhibitory potency for the sodium-hydrogen exchanger involved in intracellular pH regulation in the order Ph > pyridine > pyrazine.

465513-38-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of benzene and pyridine isosteres of amiloride as selective inhibitors of the human platelet Na+/H+ exchanger involved in the regulation of intracellular pH)

465513-38-6 HCAPLUS RN

3-Pvridinecarboxamide, N-(aminoiminomethvl)-2.5.6-trichloro- (CA INDEX NAME)

- IT 54718-39-7P 58584-88-6P 58584-95-5P 142266-62-4P 339364-12-4P 465513-08-0P 465513-12-6P 465513-13-7P 465513-26-2P
  - RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
  - (preparation of benzene and pyridine isosteres of amiloride as selective inhibitors of the human platelet Na+/H+ exchanger involved in the
- regulation of intracellular pH)
- RN 54718-39-7 HCAPLUS
- CN 3-Pyridinecarboxylic acid, 2,5,6-trichloro- (CA INDEX NAME)

- RN 58584-88-6 HCAPLUS
- CN 3-Pyridinecarbonyl chloride, 2,5,6-trichloro- (CA INDEX NAME)

- RN 58584-95-5 HCAPLUS
- CN Pyridine, 2,3,6-trichloro-5-methyl- (CA INDEX NAME)

- RN 142266-62-4 HCAPLUS
- CN 3-Pyridinecarboxamide, 2,5,6-trichloro- (CA INDEX NAME)

sti

RN 339364-12-4 HCAPLUS

CN Pyridine, 3-(bromomethyl)-2,5,6-trichloro- (CA INDEX NAME)

RN 465513-08-0 HCAPLUS

CN 3,5-Pyridinediamine, 2-chloro-6-methyl- (CA INDEX NAME)

RN 465513-12-6 HCAPLUS

CN 2-Pyridinecarboxylic acid, 3,5-diamino-6-chloro- (CA INDEX NAME)

RN 465513-13-7 HCAPLUS

CN 2-Pyridinecarboxylic acid, 3,5-diamino-6-chloro-, 3-[(1,1-dimethylethyl)amino]-1-methyl-3-oxo-1-propen-1-yl ester (CA INDEX NAME)

RN 465513-26-2 HCAPLUS

CN Pyridine, 2,3,6-trichloro-5-(dibromomethyl)- (CA INDEX NAME)

INVENTOR(S):

REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 17 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:78383 HCAPLUS DOCUMENT NUMBER: 134:163059

TITLE:

Substituted piperazinone derivatives and other oxoazaheterocyclyl compounds useful as factor Xa/IIa

inhibitors

Yong Mi; Pauls, Heinz W.; He, Wei; Condon, Stephen M.; Davis, Roderick S.; Hanney, Barbara A.; Spada, Alfred

Ewing, William R.; Becker, Michael R.; Choi-Sledeski, P.; Burns, Christopher J.; Jiang, John Z.; Li, Aiwen; Myers, Michael R.; Lau, Wan F.; Poli, Gregory B.

PATENT ASSIGNEE(S): Aventis Pharmaceuticals Products Inc., USA

SOURCE: PCT Int. Appl., 460 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO. KIND APPLICATION NO. DATE WO 2001007436 A2 20010201 WO 2000-IB1156 20000726 WO 2001007436 A3 20010823 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,

SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM CA 2382755 20010201 CA 2000-2382755 A1 20000726 BR 2000013179 Α 20020402 BR 2000-13179 20000726 EP 1208097 A2 20020529 EP 2000-951781 20000726 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL TR 200200225 T2 20020621 TR 2002-225 20000726 HU 2002003375 A2 20021228 HU 2002-3375 20000726 HU 2002003375 A3 20050329 JP 2003508353 Т 20030304 JP 2001-512520 20000726 EE 2002-45 EE 200200045 Α 20030616 20000726 AU 773227 B2 20040520 AU 2000-64628 20000726 NO 2002000214 Α 20020402 NO 2002-214 20020115 BG 106340 BG 2002-106340 Α 20020122 ZA 2002000543 Α 20030623 ZA 2002-543 20020122 MX 2002-PA888 MX 2002PA00888 Α 20020730 20020125 PRIORITY APPLN. INFO.: US 1999-363196 A 19990728 W 20000726 WO 2000-IB1156 MARPAT 134:163059 OTHER SOURCE(S): GT

G1

AB The invention is directed to piperazinones I and their pharmaceutically acceptable salts, prodrugs, N-oxides, hydrates, and solvates [wherein A = CH or N; Gl and G2 = L1Cyl or L2Cy2; Cyl and Cy2 = (un)substituted aryl, heteroaryl, cycloalkyl, cycloalkenyl, heterocyclyl, etc.; L1 = null, O, S, SO, SO2, or (un)substituted sulfammyl, methylene, (alkyl)keto(alkyl), carbamoyl, etc.; L2 = null or linking group; R1, R1a, R2, R2a, R3, R3a, R4, R4a = independently H, carboxy, alkoxycarbonyl, alkyl, (hetero)aryl, aralkyl, heteroarylalkyl, etc.; m and n = independently 0-2]. The compds. inhibit factor Xa (no data) and factor IIa, and thereby the production of

thrombin, and are thus useful as anticoagulants in the treatment of a wide variety of conditions. The invention is also directed to pharmaceutical compns., synthetic intermediates, and a method of inhibiting factor Xa. Examples include the synthesis of approx. 1600 invention compds. and several hundred intermediates. For instance, condensation of 5-chloro-2-thienyloxyacetic acid with the corresponding N-benzyloxycarbonyl-protected piperazinone derivative (prepns. given), using DIEEA and TBTU in DMF, gave II.

T 20928-38-5P 20928-46-5P 234108-60-2P RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent) (intermediate; preparation of piperazinone derivs. and other substituted oxoazaheterocycly] compds. as factor Xa/IIa inhibitors)

RN 20928-38-5 HCAPLUS

CN 4-Pyridinamine, 2,3,5,6-tetrachloro-N-(phenylmethyl)- (CA INDEX NAME)

RN 20928-46-5 HCAPLUS

CN Pyridine, 2,3,5,6-tetrachloro-4-nitro- (CA INDEX NAME)

CN

RN 234108-60-2 HCAPLUS

1-Piperazinecarboxylic acid, 3-oxo-4-[2-[(2,3,5,6-tetrachloro-4-pyridinyl)amino]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

$$\begin{array}{c} \text{C1} & \text{O} \\ \text{NH-CH}_2\text{-CH}_2\text{--N} \\ \text{C1} & \text{O} \\ \text{C1} & \text{O} \\ \end{array}$$

IT 6298-19-7, 3-Amino-2-chloropyridine

RL: RCT (Reactant); RACT (Reactant or reagent) (starting material; preparation of piperazione derivs. and other substituted oxoazaheterocyclyl compds. as factor Xa/IIa inhibitors) RN 6298-19-7 HCAPLUS

CN 3-Pyridinamine, 2-chloro- (CA INDEX NAME)

IT 234105-96-5P 234105-97-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(target compound; preparation of piperazinone derivs. and other substituted oxoazaheterocyclyl compds. as factor Xa/IIa inhibitors)

RN 234105-96-5 HCAPLUS

CN 2-Piperazinone, 4-[[2-(5-chloro-2-thieny1)etheny1]sulfony1]-1-[2-[(2,3,5,6-tetrachloro-4-pyridiny1)amino]ethy1]- (CA INDEX NAME)

RN 234105-97-6 HCAPLUS

CN 2-Piperazinone, 1-[2-[(2-amino-3,5,6-trichloro-4-pyridinyl)amino]ethyl]-4-[[2-(5-chloro-2-thienyl)ethenyl]sulfonyl]- (CA INDEX NAME)

L9 ANSWER 18 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:384179 HCAPLUS

DOCUMENT NUMBER: 133:30741

TITLE: Substituted piperazinone derivatives and other oxoazaheterocyclyl compounds useful as factor Xa

inhibitors

INVENTOR(S): Ewing, William R.; Becker, Michael R.; Myers, Michael

R.; Spada, Alfred P.

PATENT ASSIGNEE(S): Aventis Pharmaceuticals Products Inc., USA

SOURCE: PCT Int. Appl., 219 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3 PATENT INFORMATION:

PATEN	IT I	INFOR	MATI	ON:														
		TENT				KIND		DATE			APPLICATION NO.						ATE	
		2000																
		W:	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CU,	CZ,	DE,
			DK,	EE,	ES,	FI,	GB,	GE,	GH,	GM,	HU,	ID,	IL,	IS,	JP,	ΚE,	KG,	KP,
			KR,	KZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,	NO,
			NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TR,	TT,	UA,
			UG,	US,	UZ,	VN,	YU,	ZW										
		RW:	GH,	GM,	KE,	LS,	MW,	SD,	SL,	SZ,	TZ,	UG,	ZW,	AT,	BE,	CH,	CY,	DE,
			DK,	ES,	FI,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,
			CG,	CI,	CM,	GA,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG				
	WO	9937	304			A1		1999	0729		WO 1	999-1	US16	82		19	9990	127
		W:	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	CA,	CN,	CU,	CZ,	DE,	DK,
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			LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,	NO,	NZ,	PL,	PT,
			RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TR,	TT,	UA,	UG,	US,	UZ,
			VN,	YU,	ZW													
		RW:	GH,	GM,	KE,	LS,	MW,	SD,	SZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,	DE,	DK,	ES,
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								MR,										
		2003				T		2003									9991	
PRIOF	(TI	Y APP	LN.	INFO	. :						US 1	998-	1100	12P		A2 19	9981	125
											WO 1							
											US 1							
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											US 1							
											WO 1	999-1	JS28	074	1	W 19	9991	124

OTHER SOURCE(S): MARPAT 133:30741

GI

- The invention is directed to piperazinones I and their pharmaceutically acceptable salts, prodrugs, N-oxides, hydrates, and solvates [wherein R1 = H, alkyl, aryl, aralkyl, heteroaryl, heteroarylalkyl, alkoxy, aminoalkyl, CH2OZ, CH(CH3)OZ; R2 = H, (un)substituted alkyl, aryl, aralkyl, heteroaryl, or heteroarylalkyl; R3 = H or Me; X = N or O; Z = lower alkyl or alkoxycarbonylalkyl; Cyl = (un)substituted aryl, (un)substituted heteroaryl; Cy2 = (un) substituted aryl, heteroaryl, cycloalkyl, cycloalkenyl, heterocyclyl, etc.]. The compds. inhibit factor Xa (no data), and thereby the production of thrombin, and are thus useful as anticoagulants in the treatment of a wide variety of conditions. invention is also directed to pharmaceutical compns., synthetic intermediates, and a method of inhibiting factor Xa. Examples include the synthesis of approx. 780 invention compds., approx. 50 of which are also claimed, and several hundred intermediates. For instance, condensation of 5-chloro-2-thienyloxyacetic acid with the corresponding N-benzyloxycarbonyl-protected piperazinone derivative (prepns. given), using DIPEA and TBTU in DMF, gave the preferred title compound II. ΙT 20928-38-5P 20928-46-5P 234108-60-2P
- RL: RCT (Reactant); SPN (Synthetic preparation); PREP
  (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of piperazinone derivs. and other substituted oxoazaheterocyclyl compds. as factor Xa inhibitors) 20928-38-5 HCAPLUS

CN 4-Pvridinamine, 2,3,5,6-tetrachloro-N-(phenvlmethvl)- (CA INDEX NAME)

RN

- RN 20928-46-5 HCAPLUS
  - CN Pyridine, 2,3,5,6-tetrachloro-4-nitro- (CA INDEX NAME)

- RN 234108-60-2 HCAPLUS
- CN 1-Piperazinecarboxylic acid, 3-oxo-4-[2-[(2,3,5,6-tetrachloro-4-pyridinyl)amino]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

IT 6298-19-7, 3-Amino-2-chloropyridine

RL: RCT (Reactant); RACT (Reactant or reagent)

(starting material; preparation of piperazinone derivs. and other substituted oxoazaheterocyclyl compds. as factor Xa inhibitors)

- RN 6298-19-7 HCAPLUS
- CN 3-Pyridinamine, 2-chloro- (CA INDEX NAME)

IT 234105-96-5P 234105-97-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(target compound; preparation of piperazinone derivs, and other substituted oxoazaheterocyclyl compds, as factor Xa inhibitors)

- oxoazaheterocyclyl compds. as factor Xa inhibitors)
  RN 234105-96-5 HCAPLUS
- CN 2-Piperazinone, 4-[[2-(5-chloro-2-thienyl)ethenyl]sulfonyl]-1-[2-[(2,3,5,6-tetrachloro-4-pyridinyl)amino]ethyl]- (CA INDEX NAME)

RN 234105-97-6 HCAPLUS

CN 2-Piperazinone, 1-[2-[(2-amino-3,5,6-trichloro-4-pyridinyl)amino]ethyl]-4[[2-(5-chloro-2-thienyl)ethenyl]sulfonyl]- (CA INDEX NAME)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 19 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:487215 HCAPLUS

DOCUMENT NUMBER: 131:130007

TITLE: Substituted piperazinone derivatives and other oxoazaheterocyclyl compounds useful as factor Xa

inhibitors

INVENTOR(S): Ewing, William R.; Becker, Michael R.; Choi-Sledeski, Yong Mi; Pauls, Heinz W.; He, Wei; Condon, Stephen M.;

Davis, Roderick S.; Hanney, Barbara A.; Spada, Alfred P.; Burns, Christopher J.; Jiang, John Z.; Li, Aiwen; Myers, Michael R.; Lau, Wan F.; Poli, Gregory B.

PATENT ASSIGNEE(S): Rhone-Poulenc Rorer Pharmaceuticals Inc., USA

SOURCE: PCT Int. Appl., 300 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PAT	TENT	NO.			KIN	D	DATE			APPL	ICAT	I NOI	NO.		D	ATE		
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WO	9937	304			A1		1999	0729		WO 1	999-1	JS16	82		1	9990	127	
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		LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,	NO,	NZ,	PL,	PT,	
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VN, YU, ZW
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             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     ZA 9900607
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                                            ZA 1999-607
                         A
                                                                    19990127
     CA 2319198
                         A1
                                19990729
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                                                                    19990127
     AU 9926533
                         A
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     EP 1051176
                         A1
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             IE, SI, LT, LV, FI, RO
     TR 200002182
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                                                                    19990127
     JP 2002501024
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                                20020115
                                            JP 2000-528286
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     EE 200000435
                        A
                               20020215
                                           EE 2000-435
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                        A2 20020429
A3 20020528
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                                           HU 2001-1810
                                                                    19990127
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                        T
A1
     AT 346050
                                            AT 1999-906684
                               20061215
                                                                    19990127
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     WO 2000032590
                                           WO 1999-US28074
                                                                    19991124
         W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO,
             NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA,
             UG, US, UZ, VN, YU, ZW
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
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                             20031007
     JP 2003529531
                                          JP 2000-585232
                                                                    19991124
                        A 20000926
A 20010330
A1 20040527
     NO 2000003808
                                            NO 2000-3808
                                                                    20000725
     BG 104633
                                            BG 2000-104633
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     US 20040102450
                                             US 2003-628093
                                                                    20030725
PRIORITY APPLN. INFO.:
                                             US 1998-72707P
                                                               A2 19980127
                                             US 1998-110012P
                                                                A2 19981125
                                             WO 1999-US1682
                                                                W 19990127
                                             US 1999-313611
                                                                A2 19990518
                                             US 1999-363196 A2 19990728
WO 1999-US28074 W 19991124
OTHER SOURCE(S): MARPAT 131:130007
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GΙ

AB The invention is directed to oxoazaheterocyclyl compds. I and their pharmaceutically acceptable salts, prodrugs, N-oxides, hydrates, and solvates [wherein A = CH, N; G1, G2 = (independently) -L-Cy; L = various atomic and mol. linkers, including O, (un)substituted NH or S, alk(en/yn)ylene, etc., or their combinations; Cy = (un)substituted (hetero)aryl, cycloalk(en)yl, heterocyclyl, etc.; R = (independently) H, CO2H, alkoxycarbonyl, (un)substituted carbamoyl, alkyl, (hetero)aryl, (hetero)aralkyl; or two geminal R groups = 0 or S; m, n = 0-2; with provisos]. The compds. inhibit factor Xa (no data), and thereby the production of thrombin, and are thus useful as anticoagulants in the treatment of a wide variety of conditions. The invention is also directed to pharmaceutical compns., synthetic intermediates, and a method of inhibiting factor Xa. Examples include the synthesis of approx. 780 compds. I, which are also claimed, and several hundred intermediates. For instance, sulfonamidation of 6-chlorobenzo[b]thiophene-2-sulfonyl chloride with 4-(2-oxopiperazin-1-ylmethyl)benzamidine bistrifluoroacetate (prepns. given) in CH2Cl2 in the presence of Et3N gave title compound II. 20928-38-5P 20928-46-5P 234108-60-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of piperazinone derivs. and other substituted oxoazaheterocyclyl compds. as factor Xa inhibitors) 20928-38-5 HCAPLUS

RN 20928-38-5 HCAPLUS CN 4-Pyridinamine, 2,3,5,6-tetrachloro-N-(phenylmethyl)- (CA INDEX NAME)

RN 20928-46-5 HCAPLUS

CN Pyridine, 2,3,5,6-tetrachloro-4-nitro- (CA INDEX NAME)

RN 234108-60-2 HCAPLUS

CN 1-Piperazinecarboxylic acid, 3-oxo-4-[2-[(2,3,5,6-tetrachloro-4-pyridinyl)amino]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

$$\begin{array}{c} \texttt{C1} \\ \texttt{NH-CH}_2-\texttt{CH}_2-\texttt{N} \\ \texttt{C1} \\ \texttt{C1} \\ \end{array}$$

IT 6298-19-7, 3-Amino-2-chloropyridine
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; preparation of piperazinone derivs. and other
substituted oxoazaheterocyclyl compds. as factor Xa inhibitors)

RN 6298-19-7 HCAPLUS

CN 3-Pyridinamine, 2-chloro- (CA INDEX NAME)

IT 234105-96-5P 234105-97-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (target compound; preparation of piperazinone derivs. and other substituted

oxoazaheterocyclyl compds. as factor Xa inhibitors) RN 234105-96-5 HCAPLUS

CN 2-Piperazinone, 4-[[2-(5-chloro-2-thienyl)ethenyl]sulfonyl]-1-[2-[(2,3,5,6-tetrachloro-4-pyridinyl)amino]ethyl]- (CA INDEX NAME)

RN 234105-97-6 HCAPLUS

CN 2-Piperazinone, 1-[2-[(2-amino-3,5,6-trichloro-4-pyridinyl)amino]ethyl]-4-[[2-(5-chloro-2-thienyl)ethenyl]sulfonyl]- (CA INDEX NAME)

$$\begin{array}{c} \text{C1} \\ \text{C1} \\ \text{C1} \\ \text{C1} \\ \text{C2} \\ \text{C3} \\ \text{C4} \\ \text{C4} \\ \text{C5} \\ \text{C7} \\ \text{C1} \\ \text{C1} \\ \text{C1} \\ \text{C2} \\ \text{C4} \\ \text{C1} \\ \text{C2} \\ \text{C4} \\ \text{C4} \\ \text{C5} \\ \text{C6} \\ \text{C7} \\ \text{C1} \\ \text{C1} \\ \text{C2} \\ \text{C4} \\ \text{C4} \\ \text{C5} \\ \text{C6} \\ \text{C7} \\ \text{C6} \\ \text{C7} \\ \text{C8} \\ \text{C8} \\ \text{C8} \\ \text{C8} \\ \text{C8} \\ \text{C9} \\$$

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 20 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:308346 HCAPLUS

DOCUMENT NUMBER: 126:330626

ORIGINAL REFERENCE NO.: 126:64259a,64262a

TITLE: Preparation of 8-aza-, 6-aza- and

6,8-diaza-1,4-dihydroquinoxaline-2,3-diones as antagonists for the glycine/NMDA receptor

INVENTOR(S): Cai, Sui X.; Keana, John F. W.; Weber, Eckard

PATENT ASSIGNEE(S): Oregon Health Sciences University, USA; University of

California; ACEA Pharmaceuticals, Inc.

SOURCE: U.S., 37 pp., Cont.-in-part of U.S. Ser. No. 289,366,

abandoned.

CODEN: USXXAM Patent

DOCUMENT TYPE: LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	US 5620978	A	19970415	US 1995-368163	19950103
	CA 2180122	A1	19950713	CA 1995-2180122	19950103
	IL 112235	A	20000629	IL 1995-112235	19950103
	US 5863916	A	19990126	US 1997-795387	19970204
	JP 2005247864	A	20050915	JP 2005-121174	20050419
PRIOR	RITY APPLN. INFO.:			US 1994-176278 B	2 19940103
PRIOF	JP 2005247864			JP 2005-121174	20050419

US 1994-289366 B2 19940811 JP 1995-518626 A3 19950103 US 1995-368163 A3 19950103

OTHER SOURCE(S):

CASREACT 126:330626; MARPAT 126:330626

AB Title compds. I [R = H, OH, NH2, CH2CONHRI, NHCONHRI, NHCOCH2RI, COCH2RI, (un)esterified carboxyslky; Rl = aryl; R2, R3 = H, NO2, NH2, halo, haloalkyl, CN, alkyl, cycloalkyl, alkenyl, alkynyl, N3, acylamino, alkylsulfonyl, (un)substituted aryl, heteroaryl, alkoxy, trialkylsilyl-substituted alkoxy, (un)substituted aryloxy, heteroaryloxy, heterocyclic, heterocyclyloxy, aralkoxy, haloalkoxy, R4 = H, F] were prepared These compds. have high binding to the glycine site of the NMDA receptor and are useful in treating or preventing neuronal loss associated with stroke, ischemia, CNS trauma or hypoglycemia. Thus, 2-amino-5-chloropyridine was nitrated, reduced to the diamine, cyclized with oxalic acid, and oxidized to give I [R, R2, R4 = H, R3 = Cl, II]. II had a ki of 600 nM for glycine/NMDA receptor binding and an anticonvulsant EDSO of 1-1.5 mc/kg in mice.

IT 97941-89-4P 101079-63-4P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of azaquinoxalinediones as NMDA receptor antagonists) RN 97941-89-4 HCAPLUS

CN 2,3-Pyridinediamine, 5,6-dichloro- (CA INDEX NAME)

RN 101079-63-4 HCAPLUS

CN 3,4-Pyridinediamine, 2,6-dichloro- (CA INDEX NAME)

L9 ANSWER 21 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:754788 HCAPLUS

DOCUMENT NUMBER: 126:47080

ORIGINAL REFERENCE NO.: 126:9281a,9284a

TITLE: Synthesis of dihalopicoline N-oxides and their 4-nitro

derivatives

AUTHOR(S): Ciurla, H.; Puszko, A.

CORPORATE SOURCE: Russia

SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1996), (10),

1366-1371

CODEN: KGSSAQ; ISSN: 0132-6244
PUBLISHER: Latvijskij Institut Organichesk

PUBLISHER: Latviiskii Institut Organicheskogo Sinteza
DOCUMENT TYPE: Journal

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 126:47080

AB Three aminohalo-substituted  $\alpha$ - and  $\beta$ -picolines, six

dihalo-substituted  $\alpha$ - and  $\beta$ -picolines, six dihalo-substituted  $\alpha$ - and  $\beta$ -picoline N-oxides, and six dihalo-4-nitropicoline

N-oxides were synthesized in excellent yields. Some properties of the

products were reported. 39745-40-9P, 3-Pyridinamine, 2-chloro-6-methyl-

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and diazotization-halogenation of)

RN 39745-40-9 HCAPLUS

CN 3-Pyridinamine, 2-chloro-6-methyl- (CA INDEX NAME)

IT 185017-75-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and nitration of)

RN 185017-75-8 HCAPLUS

CN Pyridine, 2,3-dichloro-6-methyl-, 1-oxide (CA INDEX NAME)

RN 54957-86-7 HCAPLUS

N Pyridine, 2,3-dichloro-6-methyl- (CA INDEX NAME)

IT 185017-81-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of) RN 185017-81-6 HCAPLUS

CN Pyridine, 2,3-dichloro-6-methyl-4-nitro-, 1-oxide (CA INDEX NAME)

L9 ANSWER 22 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1996:331979 HCAPLUS

ACCESSION NUMBER: DOCUMENT NUMBER:

125:58447

ORIGINAL REFERENCE NO.:

CORPORATE SOURCE:

125:11237a,11240a

TITLE:

SOURCE:

Synthesis of substituted azaoxindoles for the preparation of aza-tenidap analogs

AUTHOR(S): Robinson, Ralph P.; Donahue, Kathleen M.; Son, Paul S.; Wagy, Steven D.

Central Research Division, Pfizer Inc., Groton, CT, 06340, USA

Journal of Heterocyclic Chemistry (1996), 33(2),

287-293

CODEN: JHTCAD; ISSN: 0022-152X

PUBLISHER: HeteroCorporation

DOCUMENT TYPE: Journal

LANGUAGE:

Journal English

The preparation of azaoxindoles, i.e., 2H-pyrrolo[3,2-b]pyridin-2-ones I (X = 1)H, halo, methoxy, etc.; Y = H, halo, CF3) bearing substituents on the aromatic nucleus was outlined. These compds. were required for the preparation of

aza-analogs of the antiinflammatory oxindole tenidap. Two methods of synthesis were used, the first involving the addition of malonate to 2-chloro-3-nitropyridine derivs, followed by nitro group reduction and one-pot cyclization/hydrolysis/decarboxylation. The second method, utilizing the vicarious nucleophilic substitution (VNS) reaction of nitropyridine derivs. (followed by nitro group reduction and one-pot cyclization/hydrolysis), constitutes a novel route to azaoxindoles. Also prepared was 7-chloro-1,3-dihydro-2H-pyrrolo[2,3-c]pyridin-2-one (II). 136888-27-2P 136888-76-1P 136888-78-3P

178393-18-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyrrolo[3,2-b]pyridinones as intermediates for tenidap analogs)

RN 136888-27-2 HCAPLUS

CN Propanedioic acid, 2-(5,6-dichloro-3-nitro-2-pyridinyl)-, 1,3-diethyl ester (CA INDEX NAME)

RN 136888-76-1 HCAPLUS

CN Propanedioic acid, 2-(5-amino-6-chloro-2-pyridinyl)-, 1,3-diethyl ester (CA INDEX NAME)

RN 136888-78-3 HCAPLUS

Propanedioic acid, 2-(5-amino-3,6-dichloro-2-pyridinyl)-, 1,3-diethyl ester (CA INDEX NAME)

$$\begin{array}{c|c} & \circ \\ & \circ \\ \text{EtO-C} & \circ \\ \circ & & | \\ \text{CH-C-OEt} \\ \\ \text{H}_2\text{N} & \text{C1} \end{array}$$

RN 178393-18-5 HCAPLUS CN 4-Pyridineacetonitrile, 3-amino-2-chloro- (CA INDEX NAME)

ANSWER 23 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN 1989:38894 HCAPLUS

ACCESSION NUMBER: DOCUMENT NUMBER: 110:38894

ORIGINAL REFERENCE NO.: 110:6475a,6478a

TITLE: Preparation of 2,6-dihalo-3-(arylmethyl)pyridines as dye intermediates

INVENTOR(S): Weis, Claus D.; Sutter, Peter

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz. SOURCE: Eur. Pat. Appl., 17 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: German FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 272221 EP 272221	A2 A3	19880622 19890104	EP 1987-810753	19871214
R: CH, DE, FR,	GB, LI			
US 4897484 JP 63165366	A A	19900130 19880708	US 1987-130486 JP 1987-319105	19871209 19871218
PRIORITY APPLN. INFO.: OTHER SOURCE(S):	MADDAT	110:38894	CH 1986-5096 A	19861219
GI	PIARPAT	110:38894		

- The title compds. (I; R = aryl, heteroaryl; X = halo) were prepared by AR diazotization of RNH2, condensation of the product with H2C:C(CN)CH2CH2CN (II) to give RCH2CX(CN)CH2CH2CN which is cyclized to a piperidine-2,6-dione, and aromatization to I. Thus, aniline and II were heated to 55-60° in MeP(O)(OMe)2 containing HCl and CuCl and EtCHMeONO added over 1.5 h and the mixture stirred an addnl. 1.5 h to give PhCH2CCl(CN)CH2CH2CN which was refluxed 2 h in HOAc containing H2SO4 to give III. The latter was refluxed 7 h in POC13 containing (Me2N)3P to give 50% I (R = Ph, X = C1).
- IT 112177-06-7P 118327-79-0P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
- (preparation and reaction of, in preparation of dye intermediates)
- 112177-06-7 HCAPLUS RN
- CN Pentanedinitrile, 2-chloro-2-[(2,5,6-trichloro-3-pyridinyl)methyl]- (CA INDEX NAME)

$$\begin{array}{c} \text{C1} & \text{C1} \\ \text{C1} & \text{CN} \\ \text{C1} & \text{CH}_2\text{--}\text{C}\text{--}\text{CH}_2\text{--}\text{CN} \\ \text{C1} & \text{C1} \end{array}$$

- RN 118327-79-0 HCAPLUS
- CN 2,6-Piperidinedione, 3-chloro-3-[(2,5,6-trichloro-3-pyridinyl)methyl]-(CA INDEX NAME)

- IT 118327-82-5P
  - RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, as dve intermediate)
- 118327-82-5 HCAPLUS RN
- Pyridine, 2.3.6-trichloro-5-[(2.6-dichloro-3-pyridinyl)methyl]- (CA INDEX CN NAME)

6298-19-7, 2-Chloro-3-aminopyridine 55304-76-2 62476-56-6 RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, in preparation of dye intermediates)

6298-19-7 HCAPLUS RN

CN 3-Pyridinamine, 2-chloro- (CA INDEX NAME)

RN 55304-76-2 HCAPLUS

CN 3-Pyridinamine, 2,5,6-trichloro- (CA INDEX NAME)

RN 62476-56-6 HCAPLUS

CN 3-Pyridinamine, 2,6-dichloro- (CA INDEX NAME)

L9 ANSWER 24 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:610902 HCAPLUS DOCUMENT NUMBER: 109:210902 ORIGINAL REFERENCE NO.: 109:34887a,34890a

TITLE: Preparation N-pyridyl-N'-benzoylureas as insecticides INVENTOR(S): Toki, Tadaaki; Tsujii, Yasuhiro; Yoshida, Kyomitsu;

Nakamura, Yuji; Imai, Osamu; Kimura, Tokiya

PATENT ASSIGNEE(S): Ishihara Sangyo Kaisha, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. JP 63048268 19880229 JP 1986-191012 19860814 F30

PRIORITY APPLN. INFO.: OTHER SOURCE(S):

02

JP 1986-191012 MARPAT 109-210902

19860814

OTHER SOURCE(S):

MARPAT 109:210902

Q3

AB Title compds. I [A = Q1, Q2, Q3, Q4; X1 = halo, X2, X3 = H, halo; X4 = halo, R10, R10, ene of X5 and X6 = CF3 and other = halo, S(0), R82; X7 = H, halo, R10; R1 = (halo-substituted) alkyl, R2 = alkyl; n = 0-2] are prepared by reaction of 2,6-X1X2C6H3CONCO and ANH2. Chlorination of 2,6-X1X2C6H3CONCO and ANH2. Chlorination of 2,6-X1X2C6H3CONCO and ANH2. Chlorination of 140-160° for 3 h gave 2,3,6-trichloro-4-trifluoromethylpyridine, which was autoclaved in 28 aqueous NH3 in the presence of CuCl at 120° for 12 h to afford 6-amino-2,3-dichloro-4-trifluoromethylpyridine (II). A solution of II in dioxane was treated with 2,6-P2C6H3CONCO to give I (A = Q1; X1 = X2 = F; X3 = X4 = C1), which at 800 ppm showed 100% control of Spodpotera litura. A wettable powder was formulated containing I (A = Q1; X1 = X2 = X4 = F; X3 = C1) 20, zeeklite 72, and Na ligninsulfonate 8 weight parts.

IT 81565-20-00, 2,3,6-Trichloro-4-trifluoromethylpyridine

04

11 51555-20-04, 2,3,6-111ch10r0-4-trifluoromethylpyridin 117519-03-6P 117519-09-2P, 3-Amino-2-chloro-6-trifluoromethylpyridine RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)
 (preparation and reaction of, in preparation of pyridyl(benzoyl)urea
insecticides)

- RN 81565-20-0 HCAPLUS
- CN Pyridine, 2,3,6-trichloro-4-(trifluoromethyl)- (CA INDEX NAME)

- RN 117519-03-6 HCAPLUS
- CN 2-Pyridinamine, 5,6-dichloro-4-(trifluoromethyl)- (CA INDEX NAME)

RN 117519-09-2 HCAPLUS

CN 3-Pyridinamine, 2-chloro-6-(trifluoromethyl)- (CA INDEX NAME)

IT 117518-86-2P

> RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES

(Uses)

(preparation of, as insecticide)

RN 117518-86-2 HCAPLUS

CN Benzamide, N-[[[5,6-dichloro-4-(trifluoromethy1)-2pyridinyl]amino]carbonyl]-2,6-difluoro- (CA INDEX NAME)

L9 ANSWER 25 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1988:55848 HCAPLUS

DOCUMENT NUMBER: 108:55848

ORIGINAL REFERENCE NO.: 108:9321a,9324a

TITLE: The synthesis of halogenated pyridines substituted at

the carbon atom C-3 AUTHOR(S): Sutter, Peter; Weis, Claus D.

Dyest. Chem. Dep., Ciba-Geigy, Ltd., Basel, Switz. CORPORATE SOURCE: Journal of Heterocyclic Chemistry (1987), 24(4),

SOURCE: 1093-102

CODEN: JHTCAD; ISSN: 0022-152X

DOCUMENT TYPE: Journal LANGUAGE: English OTHER SOURCE(S):

CASREACT 108:55848

GI

- AB Seventeen 3-substituted pyridines I (R = Ph, 4-MeC6H4, 4-NO2C6H4, 2,5-C12C6H3, 3-pyridinyl, etc.) were prepared in 3 steps from the corresponding amines RNH22 (II). Arylation of H2C:C(CN)CH2CH2CN with II in the presence of CuCl, HCl, and isoamyl nitrite in di-Me methylphosphonate (preferred solvent) gave dicyanobutanes RCH2CCI(CN)CH2CH2CN which were cyclized with H2S04-HOAc to give piperidinediones III. Aromatization with POCI3 in the presence of HMPA gave I.
- IT 6298-19-7, 2-Chloro-3-aminopyridine 55304-76-2,
  2,5,6-Trichloro-3-aminopyridine 62476-56-6,
  2,6-Dichloro-3-aminopyridine
  R1: RCT (Reactant); RACT (Reactant or reagent)
  (arylation by, of methyleneglutaronitrile)
- RN 6298-19-7 HCAPLUS
- CN 3-Pyridinamine, 2-chloro- (CA INDEX NAME)

- RN 55304-76-2 HCAPLUS
- CN 3-Pyridinamine, 2,5,6-trichloro- (CA INDEX NAME)

- RN 62476-56-6 HCAPLUS
- CN 3-Pyridinamine, 2,6-dichloro- (CA INDEX NAME)

112177-06-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and cyclization of)

112177-06-7 HCAPLUS RN

CN Pentanedinitrile, 2-chloro-2-[(2,5,6-trichloro-3-pyridinyl)methyl]- (CA INDEX NAME)

$$\begin{array}{c|c} \text{C1} & \text{N} & \text{C1} \\ & \text{CN} \\ \text{C1} & \text{CH}_2-\text{C}-\text{CH}_2-\text{CH}_2-\text{CN} \\ & \text{C1} \end{array}$$

L9 ANSWER 26 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

1986:591059 HCAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 105:191059

ORIGINAL REFERENCE NO.: 105:30835a,30838a

TITLE:

1-Cyclopropyl-1, 4-dihydro-4-oxo-1, 8-naphthyridine-3carboxylic acids

INVENTOR(S): Petersen, Uwe; Grohe, Klaus; Zeiler, Hans Joachim; Metzger, Karl Georg

PATENT ASSIGNEE(S): Bayer A.-G. , Fed. Rep. Ger.

SOURCE: Ger. Offen., 64 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent German

LANGUAGE: FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAT	TENT NO.			KIND	)	DATE	1	API	PLICATION NO.	DATE
DE	3508816			A1		19860710		DE DE	1985-3508816	 19850313
NO	8505134			A		19860711	1	NO	1985-5134	19851218
NO	163331			В		19900129				
NO	163331			С		19900509				
EP	187376			A2		19860716	1	EΡ	1985-116551	19851224
EP	187376			A3		19880504				
EP	187376			B1		19920513				
		BE,	CH,	DE,	FR,	GB, IT,	LI,	NI	, SE	
ΑT	76076			T		19920515	- 1	ΑT	1985-116551	19851224
	4840954			A		19890620			1985-815440	19851231
IL	77538			A		19920525			1986-77538	19860107
FΙ	8600073			A		19860711	1	FΙ	1986-73	19860108
				В		19920630				
FΙ				С		19921012				
DD	241258			A5		19861203	- 1		1986-286039	19860108
	257427			A5		19880615			1986-296482	19860108
DD	257428			A5		19880615		DD	1986-296483	19860108
CA	1339373			С		19970826			1986-499241	19860108
DK	8600091			A		19860711		DK	1986-91	19860109

GI

DK	168439	B1	19940328				
JP	61161284	A	19860721	JP	1986-1485		19860109
JP	06053741	В	19940720				
ZA	8600163	A	19860924	zA	1986-163		19860109
HU	40126	A2	19861128	HU	1986-87		19860109
HU	193623	В	19871130				
AU	8652164	A	19870122	AU	1986-52164		19860109
AU	574550	B2	19880707				
ES	550767	A5	19880715	ES	1986-550767		19860109
PL	148191	B1	19890930	PL	1986-264565		19860109
PL	148759	B1	19891130	PL	1986-257419		19860109
HU	202840	В	19910429	HU	1987-1847		19860109
CN	86100126	A	19860709	CN	1986-100126		19860110
CN	1003239	В	19890208				
NO	8600199	A	19860711	NO	1986-199		19860121
AU	8773118	A	19870910	AU	1987-73118		19870515
AU	576449	B2	19880825				
AU	8818359	A	19880915	AU	1988-18359		19880624
FI	8902675	A	19890601	FΙ	1989-2675		19890601
CA	1320206	C2	19930713	CA	1990-615694		19900405
PRIORITY	APPLN. INFO.:			DE	1985-3500562	A1	19850110
				DE	1985-3508816	A	19850313
				EP	1985-116551	A	19851224
				CA	1986-499241	A3	19860108
				FΙ	1986-73	A	19860108
OTHER SC	OURCE(S):	CASREAG	CT 105:191059	); l	MARPAT 105:191059		

CO<sub>2</sub>H R<sup>2</sup> R<sup>3</sup>

The title compds. [I, R = halo, NO2; Rl = (un) substituted l-piperazinyl, l-pyrrolidinyl] were prepared as bactericides and feed additives. Thus, 2,6-dichloro-5-methyl-3-pyridinamine (II, R2 = NH2, R3 = Me) was diazotized and coupled with Me2NH to give II (R2 = Me2NN:N, R3 = Me) which was fluorinated with HF to give II (R2 = F, R3 = Me). The latter was converted in 6 steps to II [R2 = F, R3 = Et02CC(:CHOEt)CO] which was condensed with cyclopropylamine, followed by cyclization and hydrolysis of the ester group, to give I (R = F, R1 = Cl). The latter was heated with piperazine in Me2SO to give I (R = F, R1 = Cl). The latter was heated with piperazine in Me2SO to give I (R = F, R1 = l-piperazinyl) (III). III had a min. inhibitory concentration of ≤0.015 mcg/mL against Escherichia coli Neum. Tablets were prepared each containing III 583.0, microcyrst. cellulose 55.0, constatrof 72.0, polyvinylpyrrolidine 30.0, dispersed silica 5.0, and Mg stearate 5.0 mg.

RL: RCT (Reactant); RACT (Reactant or reagent) (diazotization of)

- RN 58596-89-7 HCAPLUS
- CN 3-Pyridinamine, 2,6-dichloro-5-methyl- (CA INDEX NAME)

IT 58584-88-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and Grignard reaction of, with malonate)

- RN 58584-88-6 HCAPLUS
- CN 3-Pyridinecarbonyl chloride, 2,5,6-trichloro- (CA INDEX NAME)

IT 104866-51-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and condensation of, with orthoformate and cyclopropylamine)

- RN 104866-51-5 HCAPLUS
- CN 3-Pyridinepropanoic acid, 2,5,6-trichloro-β-oxo-, ethyl ester (CA INDEX NAME)

L9 ANSWER 27 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1975:156113 HCAPLUS
DOCUMENT NUMBER: 82:156113

ORIGINAL REFERENCE NO: 82:24909a,24912a
TITLE: 2,6-Dibromopyridines
Mutterer, Francis
Ciba-Geigy A.-G.
SOURCE: Ger. Offen., 26 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	TENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE	2432686	A1	19750130	DE 1974-2432686	19740708
US	3974166	A	19760810	US 1974-479920	19740617
JP	50037784	A	19750408	JP 1974-77764	19740706
FR	2236861	A1	19750207	FR 1974-23983	19740710
IORITY	APPLN. INFO.:			CH 1973-10020 A	19730710

PRIORITY APPLN. INFO. GI For diagram(s),

GI For diagram(s), see printed CA Issue.

BY Fifteen pyridines I (R = Br, Rl = H, Cl, NO2, CHO, CO2H, CF3, NH2, CH2Br; R2 = H, Br; R3 = H, Cl, O2N), useful as plant protecting herbicides, were prepared from the corresponding chlorosubstituted pyridines, especially I (R = Cl), by treatment with HBr(g). Thus, I (R = Cl, R1 = R2 = R3 = H) in AcOH was treated with HBr at 110° to give 92% I (R = Br, R1 = R2 = R3 =

- RN 52465-59-5 HCAPLUS
- CN Pyridine, 2,3,6-trichloro-5-(chloromethyl)- (CA INDEX NAME)

- RN 54718-39-7 HCAPLUS
- CN 3-Pyridinecarboxylic acid, 2,5,6-trichloro- (CA INDEX NAME)

- RN 55304-72-8 HCAPLUS
- CN Pyridine, 2,3,6-trichloro-5-nitro- (CA INDEX NAME)

IT 55304-76-2

Updated Search

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with hydrogen bromide)

RN 55304-76-2 HCAPLUS

CN 3-Pyridinamine, 2,5,6-trichloro- (CA INDEX NAME)

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L1 STRUCTURE UPLOADED L2 50 \$ L1 L3 9905 \$ L1 FULL						
FILE 'HCAPLUS' ENTERED AT 17:36:25 ON 30 OCT 2008 L4 1550 S L3/PREP						
FILE 'REGISTRY' ENTERED AT 17:36:34 ON 30 OCT 2008 L5 STRUCTURE UPLOADED L6 18 S L5 L7 329 S L5 FULL						
FILE 'HCAPLUS' ENTERED AT 17:38:12 ON 30 OCT 2008  L8 684 S L7/RCT  L9 27 S L8 AMD L4  L10 1 S L9 AND SHAPIRO, R?/AU						
FILE 'REGISTRY' ENTERED AT 17:40:46 ON 30 OCT 2008  E NITRITE/CN L11 1 S E3						
FILE 'HCAPLUS' ENTERED AT 17:40:58 ON 30 OCT 2008 L12 19225 S L11 L13 0 S L12 AND L9 L14 0 S L9 AND L12						
FILE 'HCAPLUS' ENTERED AT 17:42:48 ON 30 OCT 2008						
=> file caold  COST IN U.S. DOLLARS	TAL TON					
FULL ESTIMATED COST 2.69 546.25						

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FILE COVERS 1907-1966

CA SUBSCRIBER PRICE

FILE LAST UPDATED: 01 May 1997 (19970501/UP)

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TOTAL

-22.40

SESSION

SINCE FILE

ENTRY

0.00

This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

CAOLD will be discontinued and removed from associated database clusters.

- . November 22, 2008 removed from database clusters
- . December 31, 2008 removed from STN

Content previously available only in CAOLD is now available in CA/CAplus. To learn more about the options available for transferring saved search queries and answer sets to CA/CAplus, contact your STN Service Center.

=> d his

(FILE 'HOME' ENTERED AT 17:27:42 ON 30 OCT 2008)

FILE 'REGISTRY' ENTERED AT 17:28:03 ON 30 OCT 2008

L2 50 S L1

L3 9905 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 17:36:25 ON 30 OCT 2008 L4 1550 S L3/PREP

FILE 'REGISTRY' ENTERED AT 17:36:34 ON 30 OCT 2008

L5 STRUCTURE UPLOADED L6 18 S L5

L7 329 S L5 FULL

FILE 'HCAPLUS' ENTERED AT 17:38:12 ON 30 OCT 2008 L8 684 S L7/RCT

L9 27 S L8 AND L4

L10 1 S L9 AND SHAPIRO, R?/AU

FILE 'REGISTRY' ENTERED AT 17:40:46 ON 30 OCT 2008 E NITRITE/CN

1 S E3

FILE 'HCAPLUS' ENTERED AT 17:40:58 ON 30 OCT 2008 L12 19225 S L11

L13 0 S L12 AND L9 L14 0 S L9 AND L12

FILE 'HCAPLUS' ENTERED AT 17:42:48 ON 30 OCT 2008

FILE 'CAOLD' ENTERED AT 17:42:53 ON 30 OCT 2008

=> s 13 and 17

125 L3 9 L7

L15 1 L3 AND L7

=> s 115 and copper

1031 COPPER

41 COPPERS

1072 COPPER

(COPPER OR COPPERS)

L16 0 L15 AND COPPER

=> file reg

 COST IN U.S. DOLLARS
 SINCE FILE
 TOTAL

 FULL ESTIMATED COST
 2.47
 548.72

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION

CA SUBSCRIBER PRICE 0.00 -22.40

FILE 'REGISTRY' ENTERED AT 17:43:41 ON 30 OCT 2008 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2008 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 29 OCT 2008 HIGHEST RN 1068186-59-3
DICTIONARY FILE UPDATES: 29 OCT 2008 HIGHEST RN 1068186-59-3

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TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> d his

(FILE 'HOME' ENTERED AT 17:27:42 ON 30 OCT 2008)

FILE 'REGISTRY' ENTERED AT 17:28:03 ON 30 OCT 2008

L1 STRUCTURE UPLOADED

L3 9905 S L1 FULL

72 3302 2 PT LOPP

FILE 'HCAPLUS' ENTERED AT 17:36:25 ON 30 OCT 2008 L4 1550 S L3/PREP

FILE 'REGISTRY' ENTERED AT 17:36:34 ON 30 OCT 2008 L5 STRUCTURE UPLOADED

L6 18 S L5

L7 329 S L5 FULL

FILE 'HCAPLUS' ENTERED AT 17:38:12 ON 30 OCT 2008

1.8 684 S L7/RCT 1.9 27 S L8 AND L4 L10 1 S L9 AND SHAPIRO, R?/AU

FILE 'REGISTRY' ENTERED AT 17:40:46 ON 30 OCT 2008

E NITRITE/CN L11

1 S E3

FILE 'HCAPLUS' ENTERED AT 17:40:58 ON 30 OCT 2008 L12 19225 S L11

L13 0 S L12 AND L9 L14 0 S L9 AND L12

FILE 'HCAPLUS' ENTERED AT 17:42:48 ON 30 OCT 2008

FILE 'CAOLD' ENTERED AT 17:42:53 ON 30 OCT 2008 L15 1 S L3 AND L7

L16 0 S L15 AND COPPER

FILE 'REGISTRY' ENTERED AT 17:43:41 ON 30 OCT 2008

=> file hcaplus COST IN U.S. DOLLARS

SINCE FILE TOTAL SESSION ENTRY FULL ESTIMATED COST 0.46 549.18

DISCOUNT AMOUNTS (FOR OUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION

CA SUBSCRIBER PRICE 0.00 -22.40

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FILE COVERS 1907 - 30 Oct 2008 VOL 149 ISS 18 FILE LAST UPDATED: 29 Oct 2008 (20081029/ED)

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

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This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> d his
     (FILE 'HOME' ENTERED AT 17:27:42 ON 30 OCT 2008)
     FILE 'REGISTRY' ENTERED AT 17:28:03 ON 30 OCT 2008
               STRUCTURE UPLOADED
L1
             50 S L1
L2
L3
          9905 S L1 FULL
     FILE 'HCAPLUS' ENTERED AT 17:36:25 ON 30 OCT 2008
T. 4
           1550 S L3/PREP
    FILE 'REGISTRY' ENTERED AT 17:36:34 ON 30 OCT 2008
T. 5
              STRUCTURE UPLOADED
L6
             18 S L5
            329 S L5 FULL
L7
     FILE 'HCAPLUS' ENTERED AT 17:38:12 ON 30 OCT 2008
L8
            684 S L7/RCT
             27 S L8 AND L4
L9
L10
             1 S L9 AND SHAPIRO, R?/AU
     FILE 'REGISTRY' ENTERED AT 17:40:46 ON 30 OCT 2008
              E NITRITE/CN
L11
              1 S E3
    FILE 'HCAPLUS' ENTERED AT 17:40:58 ON 30 OCT 2008
L12
         19225 S L11
             0 S L12 AND L9
L13
L14
              0 S L9 AND L12
     FILE 'HCAPLUS' ENTERED AT 17:42:48 ON 30 OCT 2008
     FILE 'CAOLD' ENTERED AT 17:42:53 ON 30 OCT 2008
L15
             1 S L3 AND L7
L16
              0 S L15 AND COPPER
     FILE 'REGISTRY' ENTERED AT 17:43:41 ON 30 OCT 2008
     FILE 'HCAPLUS' ENTERED AT 17:43:49 ON 30 OCT 2008
=> s 19 and copper?
       1015262 COPPER?
```

1 L9 AND COPPER?

0 L17 NOT L10

=> s 117 not 110 L18 0 L1